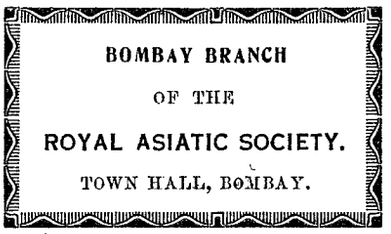
Annual Sanitary Reports

of the Sanitary Commissioner for the Government of Bombay

for the years

1907 to 1915

00133391



Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020

FORTY-FOURTH ANNUAL REPORT

OF THE

Sanitary Commissioner for the Government of Bombay

1907

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency

AND

The Annual Report of the Health Officer of the Port of Bombay

133391

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1908

ANNUAL SANITARY REPORT—1907.

(Maximum [illegible], 25 pages)

CONTENTS.

SECTION I.—METEOROLOGY—*Nil.*

SECTION II.—EUROPEAN ARMY—*Nil.*

SECTION III.—NATIVE ARMY—*Nil.*

SECTION IV.—JAILS—*Nil.*

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

Para.		Page
1.	Creation of a new collectorate	1
2—3.	Births and deaths among Europeans and Eurasians	*ib.*
4.	Native population in the Presidency	*ib.*
	Births.	
5—6.	Number of registered births	1—2
7—8.	Births by sexes	2
9.	Births by years	*ib.*
10.	Birth-rates in urban and rural population	*ib.*
11.	Birth-rates in rural registration circles	*ib.*
12.	Birth-rates in urban and cantonment circles	*ib.*
13.	Still-born	3
	Deaths.	
14.	Number of deaths	*ib.*
15.	Deaths by years	*ib.*
16.	Death-rate	*ib.*
17.	Male and female death-rates	*ib.*
18.	Deaths by districts	*ib.*
19.	Deaths by collectorates	*ib.*
20.	Birth and death-rates compared by collectorates	*ib.*
21.	Deaths by ages	4
22.	Deaths by caste or class	*ib.*
23.	Deaths by sexes	*ib.*
24.	Infant mortality	4—6
25.	Statistics of Ahmedabad City	6
26.	Deaths by causes	*ib.*
27.	Deaths by months	*ib.*
28.	Death-rates among urban and rural population	*ib.*
29.	Death-rate in rural circles	*ib.*
30.	Death-rate in town circles	*ib.*
31.	Death-rate in cantonments in British territory	7
	Cantonments in Quasi-Foreign Territory.	
32.	Statistics of cantonments in quasi-foreign territory	*ib.*

PARA. PAGE

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

33. Mortality in 1907 8
34. Deaths by collectorates... ... ... *ib.*
35. Monthly mortality ... ... *ib.*
36. Mortality by seasons ... ... *ib.*
37. Mortality for 20 years 1888—1907 ... ... *ib.*
38. Mortality in rural circles ... ... 8—9
39. Mortality in towns 9
40. Cholera in cantonments ... ... *ib.*
41. Villages affected by cholera ... ... *ib.*
42. Attacks and deaths ... ... *ib.*
43—45. Cholera producing causes and preventive measures adopted ... 9—10

SMALL-POX.

46. Deaths from small-pox in 1907 10
47. Deaths since 1896 .. .. *ib.*
48. Deaths by districts and collectorates ... ... *ib.*
49. Deaths by age 11
50. Origin and spread and preventive measures adopted ... ... *ib.*

FEVER.

51. Deaths from fever in 1907 ... ... *ib.*
52. Deaths since 1896 ... ... *ib.*
53. Deaths by districts and collectorates ... ... 11—12
54. Deaths by months 12
55. Malarial fevers ... ... *ib.*

RAINFALL.

56. Rainfall ... ... 12—13

PLAGUE.

57. Deaths from plague in 1907 13
58. Deaths since 1896 ... ... 13—14
59. Deaths by districts and collectorates 14
60. Effect of plague on the average annual death-rates ... ... *ib.*
61. Deaths by months ... ... *ib.*
62. Preventive measures adopted ... ... *ib.*
63. Deaths among the inoculated ... ... *ib.*

DYSENTERY AND DIARRHŒA.

64. Deaths from dysentery and diarrhœa in 1907 15
65. Deaths since 1896 ... ... *ib.*
66. Deaths by districts and collectorates ... ... *ib.*
67. Deaths by months ... ... *ib.*

INJURIES.

68. Deaths from injuries in 1907 ... ... *ib.*
69. Deaths since 1896 ... ... *ib.*
70. Deaths from injuries by sexes 16
71. Deaths from snake-bite by collectorates ... . *ib.*
72. Details of injuries ... ... *ib.*

RESPIRATORY DISEASES.

73. Deaths from respiratory diseases in 1907 ... ... *ib.*
74. Deaths since 1902 ... ... *ib.*
75. Deaths by districts and collectorates ... ... 16—17

OTHER CAUSES.

76. Deaths from other causes in 1907 17
77. Deaths since 1896 ... ... *ib.*
78. Deaths by districts and collectorates ... ... *ib.*

PARA. PAGE

SECTION VII.

79. General history of vaccination 18

SECTION VIII.

Sanitary Works—Military—*Nil.*

SECTION IX.

Sanitary Works—Civil.

80. Expenditure on sanitary works in municipal towns during 1906-07 ... *ib.*
81. Expenditure on sanitary works by Local Boards ... . *ib.*
82. Bombay Village Sanitation Act ... ... *ib.*
83. Village Sanitary Inspection Book ... ... *ib.*
84. Effect of water-supply and drainage on the death-rate ... ... *ib.*

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

85. Charge of the office of the Sanitary Commissioner 19
86. The districts visited by the Sanitary Commissioner ... ... *ib.*
87. Tours of the Deputy Sanitary Commissioners ... ... *ib.*

APPENDIX I.

Annual Report of the Sanitary Board for 1907 ... ... 1—2

APPENDIX II.

Annual Report of the Health Officer of the Port of Bombay for 1907 ... 3—10

APPENDIX III.

Table showing the drainage and water works completed in certain towns ... *ib.*

APPENDIX IV.

Births registered in districts 11
Deaths registered in districts 12
Deaths registered in the districts during each month of the year ... 13
Deaths registered in the districts according to age ... ... 14—15
Deaths registered in the districts according to classes ... ... 16—17
Deaths from different causes in the districts and towns ... ... 18—25
Deaths from cholera in the districts during each month of the year ... 26
Deaths from small-pox in the districts during each month of the year ... *ib.*
Deaths from fever in the districts during each month of the year ... 27
Deaths from dysentery and diarrhœa in the districts during each month of the year ... ... *ib.*
Deaths from respiratory diseases in the districts during each month of the year 28
Deaths from plague in the districts during each month of the year ... *ib.*

ANNUAL SANITARY REPORT FOR 1907.

SECTION I.—METEOROLOGY.—No remarks.

SECTION II.—EUROPEAN ARMY.—No remarks.

SECTION III.—NATIVE ARMY.—No remarks.

SECTION IV.—JAILS.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

1. In accordance with Government Notification, in the Revenue Department, No. 10509, dated 6th November 1906, published in the *Bombay Government Gazette*, Part I, dated 8th idem, page 1584, the Khándesh District has been divided into two districts, *viz.*, West Khándesh and East Khándesh, respectively.

EUROPEAN AND EURASIAN—VITAL STATISTICS.

2. The European Census population of 1901 in the Bombay Presidency, exclusive of cantonments in quasi-foreign territory, is 18,804. During the year 1907, 362 births and 302 deaths were recorded against 300 and 333 in 1906, giving a birth-rate of 13·93 *per mille* against 15·95 in 1906 and a death-rate of 16·06 against 17·71. By sexes, 193 males and 169 females were born against 155 and 145 in 1906. And as regards deaths, 198 males and 104 females died against 193 and 140 in 1906.

3. The Eurasian Census population of 1901 is 6,557. During the year 168 births were registered against 122 in 1906 and 150 deaths against 161, the birth ratios being 25·62 *per mille* against 18·61 in 1906 and the death ratios 22·88 against 24·55. Of those born, 89 were males and 79 females against 61 and 61 in 1906. As regards deaths, 79 males and 71 females died against 87 and 74 in 1906.

NATIVE POPULATION—VITAL STATISTICS.

4. In the Presidency of Bombay, including Sind, the population according to the Census of 1901 (exclusive of Europeans and Eurasians) consisted of 18,481,362 persons. Statistical returns are received from 26 collectorates comprising 224 rural circles and 56 town circles; also from 7 cantonments in British and 8 in foreign territory.

The population of the rural circles was 16,065,004:—of the town circles 2,546,440,* of the cantonments in British territory 68,980, and of the cantonments in foreign territory 120,736 persons.

Births.

5. In the Presidency of Bombay, including Sind, during the year 1907 there were 610,533 births registered against 625,486 in 1906, less by 14,953, the number registered in the previous year, and exceeding by 14,301 the decennial mean ending 1906.

Number of registered births.

6. The recorded birth-rate for the year was 33·03 *per mille* against 33·84 in 1906 and a decennial mean of 32·03.

(*a*) In Gujarát the birth-rate was 37·03 against 37·06 in 1906. It ranged from 31·83 in the Ahmedabad to 45·52 in the Panch Maháls

* Includes population of Bombay City according to the Census of 1906.

Collectorate, and compared with the preceding year there is an increase in all collectorates except Surat and Broach. The largest towns in the registration district (Surat, Broach and Ahmedabad) show decrease in the birth-rate as compared with the previous year. The Deputy Sanitary Commissioner, Gujarát Registration District, states :—"The decreased birth-rate can be attributed to defective registration."

(*b*) In the Southern Registration District the birth-rate for the whole division was 32·53 *per mille* as against 34·52 last year; and varied from 27·15 in the Kánara to 41·44 in the Bijápur Collectorate, and compared with the preceding year shows a decrease of 1·99.

(*c*) In the Western Registration District the recorded birth-rate for the year was 37·73 *per mille* as against 44·49 last year and 34·49 for the *decennium* ending with 1906; and the variations were from 20·02 in Bombay City to 55·95 in West Khándesh.

(*d*) In the Central Registration District the number of births registered was higher in 1907, in all Collectorates except Sátára, than in the previous year. This increase is due to a larger number of births occurring in the Ahmednagar and Sholápur Collectorates; the ratio for the whole registration district has risen from 33·99 to 35·10 *per mille*. The Deputy Sanitary Commissioner observes :—"This ratio is still very far behind that of the years previous to plague, when the average registered birth-rate was 36 to 38 *per mille*."

(*e*) In Sind there was a decrease of 4,697 registered births compared with last year, and also a decrease of 10,825 below the decennial mean ending 1906. The Deputy Sanitary Commissioner, Sind Registration District, states :—"This abnormally low birth-rate was probably due to the unusual prevalence of malarial fevers in the province during the latter part of the preceeding and early part of the year under report, *i. e.*, from September 1906 to March 1907."

Births by sexes. Annual Form I.

7. There were 316,867 male and 293,666 female births recorded during the year against 324,195 and 301,291 in 1906. For every 100 female births there were 107·90 males recorded as against 107·60 in the previous year.

West and East Khándesh, Násik, Thána, Kolába, Ahmednagar, Poona, Sholápur, Ratnágiri, Dhárwár, Bijápur, Surat, Broach, Panch Mahás and Karáchi.

8. In 15 out of the 26 registration districts the birth-rate exceeded the death-rate as compared with 12 out of 25 during the previous year.

Births by years.

9. The following statement shows the number of births recorded in each year since 1897 :—

1897	... 629,693	1901	... 465,647	1905	... 611,173
1898	... 582,371	1902	... 631,393	1906	... 625,486
1899	... 685,348	1903	... 576,949	1907	... 610,533
1900	... 505,662	1904	... 648,594		

Birth-rates in urban and rural population.

10. The recorded birth-rates among the urban and rural populations of the Presidency were 20·24 and 34·08 against 27·43 and 34·81 in 1906. Except in the collectorates of Dhárwár, Kánara and throughout Sind the rural birth-rates exceeded the urban.

Birth-rates in rural registration circles.

11. In 36 rural circles the birth-rate was above 50 *per mille*, in 38 it was between 40 and 50, in 25 it was between 35 and 40, in 42 it was between 30 and 35, in 36 it was between 20 and 30, and in 47 it fell below 20 *per mille*. Of these 47 rural registration circles no less than 45 are in Sind.

Birth-rates in urban and cantonment circles.

12. Out of 56 towns and 7 cantonments in the Presidency 4 towns recorded a birth-rate exceeding 40 *per mille, viz.*, Karáchi (52·11), Nasirábád (48·70), Borsád (42·54), Dhulia (41·49). Twenty towns returned rates between 30 and 40, 17 towns and 1 cantonment between 20 and 30 and the remaining 15 towns and 6 cantonments recorded birth-rates below 20 *per mille*.

Still-born.

13. During the year 1907, 10,530 (or 1·72 per cent.) of the total births were registered as "still-born," against 10,653 or 1·70 in 1906. Of these 5,863 were males and 4,667 females against 6,013 and 4,640 respectively in 1906. The percentage of still-born to born alive is, as usual, highest in Bombay City and in Kánara, 9·49 per cent. and 6·32 per cent. respectively compared with 10·63 and 5·66 in 1906. The causes of the high rate in Bombay City are attributed by the Executive Health Officer, Bombay Municipality, to "plague, the labourious occupations of females working under very trying circumstances in mills, factories, etc., and to the age at which women become mothers." In Kánara it is due to enfeeblement of the mothers by persistent malaria, *vide* Sanitary Commissioner's report for 1904, paragraph 13. An examination of the still-born rates for each Collectorate shows great variations, ranging from ·17 per cent. in the Ahmednagar Collectorate to 9·49 per cent. in Bombay City.

Deaths.

Number of deaths.

14. Among the native population in the rural town and Cantonment Circles in the Presidency, 606,606 deaths were registered in 1907, as against 648,019 or 41,413 less than in 1906. Of the total deaths registered 313,890 occurred among males, and 292,716 among females, against 336,017 and 312,002 respectively in 1906; 93,609 (or 15·43 per cent.) were due to plague, as against 51,525 (or 7·95 per cent.) last year.

Deaths by years.

15. The following statement shows the number of deaths recorded in each year since 1897 :—

1897	... 749,916	1901	... 686,134	1905	... 588,394
1898	... 548,825	1902	... 721,462	1906	... 648,019
1899	... 672,269	1903	... 811,525	1907	... 606,606
1900	... 1,318,783	1904	... 764,914		

Death-rate.

16. The general death-rate reached the proportion of 32·82 *per mille*, and was less than that of 1906 by 2·24. It was less than the birth-rate (33·03) by ·21 *per mille*.

Male and female death-rates.

17. The rate *per mille* of males dying to males living was 32·94 and of females dying to females living 32·70. In 1906 these ratios were 35·26 and 34·85 respectively. For every 100 female deaths there were 107·23 male deaths as against 107·70 in the previous year.

These ratios vary from 130·91 in Bombay City to 94·57 in the Kaira Collectorate; while the ratio of male to female deaths was 120·86 in the Province of Sind.

Deaths by districts.

18. In the Western, Central, Southern, Gujarát and Sind Registration Districts the recorded deaths in 1907 were 158,389, 172,177, 99,823, 104,527, 71,690 as against 195,421, 164,859, 95,821, 101,749 and 90,169 in the previous year; decrease being noted in the Western and Sind Registration Districts.

Deaths by Collectorates.

19. Compared with the previous year there was a decrease in the recorded death-rate in all the Collectorates excepting Sátára, Belgaum, Kánara, Broach, Kaira and Ahmedabad.

Birth and death-rates compared by Collectorates to columns 6 and 9, Annual Form No. II.

20. An examination of columns 6 and 9, Annual Form II, shows the death-rates exceeded the birth-rates in the Collectorates of Sátára, Belgaum, Kánara, Kaira, Ahmedabad and throughout the Province of Sind excepting Karáchi. In Bombay City the death and birth-rates were 39·94 and 20·02 respectively.

For the whole Presidency the birth-rate exceeded the death-rate by ·21 per 1,000 of population.

Deaths by ages, Annual Form IV.

21. Deaths by ages are given in Annual Form No. IV. It will be seen there were 219,948 deaths of children under 5 years of age, which, according to the census of 1901, gives a death-rate of 96·84 per 1,000 living. Children under 5 years of age contributed 36·26 per cent. to the total deaths.

Deaths by caste or class.

22. The deaths by classes in each Collectorate are recorded in Annual Form V, Appendix IV.

Deaths by sexes, Annual Form IV, Appendix IV.

23. The total deaths, according to age and sex distribution of the population, are given in Annual Form IV, Appendix IV. There is a decrease in the death-rate under all age periods as compared with the previous year.

Infant mortality.

24. The mortality of infants, based on the number of registered births, was 199·04 per 1,000. The proportion being 207·33 among males and 190·10 among females, as compared with 226·00 and 214·17 respectively during the previous year.

In Bombay City the ratios based on recorded statistics were 443·64 and 428·32 respectively. The Health authorities of Bombay City are compiling certain facts connected with the high rate of infant mortality in the City. The Executive Health Officer in reply to an enquiry states:—

"The work of inquiry into the conditions of the newly born infants, by the nurses employed in Bombay City, has lately been introduced. The collection of the information of such a short duration will not give correct data on which to base conclusions and calculations for future guidance. The work must be continued for 2 or 3 years. The present staff is not sufficient to enquire into each and every birth and will require to be increased in proportion to the magnitude of the work. The visiting nurses have to keep a register in which they note particulars regarding the births verified by them. From these registers they have to prepare and submit every month a summary of the enquiries made by the nurses.

From the information gathered from the visiting nurses and the Medical Staff of the Health Department, I can summarize briefly the chief causes of the high infantile mortality in Bombay. It must not be forgotten that the infant mortality calculated on the number of births registered in any one year is fallacious, the fallacy being unfavourable simply from the fact that all infants dying during the 1st year of life have not been registered as many have been born out of Bombay and are brought here after they are about 2 or 3 months old and although they add to the number dying they are not included in the number born during the year.

The population of children under 1 year of age in Bombay according to the census of 1906 is 13,027, while in 1901 the population was 9,930. I have drawn up a table giving the mortality amongst infants under 1 year of age dying in 1907, compared the figures with those of the City of Glasgow which is the largest City in the United Kingdom with a population of 835,625—the nearest approaching to Bombay in point of population.

From this it will be seen that while the total mortality is less and the infant mortality is less in Glasgow, the ratios per cent. are not so widely different. For instance the number of children dying within 30 days of their birth in Glasgow is 30 per cent. of those dying within 12 months of their births while in Bombay it was 37 per cent.

The number dying between 1 and 6 months was 29 per cent. in Bombay, it was 37 per cent. in Glasgow. The number of infants dying between the ages of 7 and 12 months in Bombay was 33 per cent., while in Glasgow it was also 33 per cent. of the total mortality under 1 year of age.

The investigation by the Municipal District nurses extended over 6 months—July to December 1907. From these returns I collect the following :—

11,785 births were registered in the city during that period. Of this number 5,412 were under the personal observation of the nurses who visited the houses of 5,412.

11·3 per cent. were still-born.

17·1 per cent. died within 30 days.

79·8 per cent. were attended by native unskilled women.

6·5 per cent. were attended by qualified midwives.

13·7 per cent. were born in hospitals and attended by medical men.

61 per cent. were born in a healthy condition.

73 per cent. were fed on breast milk.

30 per cent. the mothers left their homes during the day for work.

In the Annual Report for Glasgow for 1906 similar figures are given :—

1,127 births were under observation.

44 per cent. were not attended by any qualified persons.

26 per cent. were attended by medical men.

25 per cent. were attended by qualified nurses.

The remaining 5 per cent. are not traced.

From these investigations we learn that 79 per cent. of the number of women under observation bearing children were confined without any skilled attendance compared with 44 per cent. in Glasgow and that 30 per cent. of the mothers in Bombay are engaged on daily labour and leave the children at home. 13·7 per cent. were attended by medical men in Bombay compared to 26 per cent. in Glasgow. 6·5 per cent. were attended by qualified men in Bombay compared to 25 per cent. in Glasgow.

The enquiries have not extended over a sufficiently long time to make any statement beyond this; but it is obvious that under the conditions existing in a large overcrowded city like Bombay and the struggle for existence by the mother and children the remedy appears to be more skilled attendance in confinement, more sanitary surroundings and facilities for obtaining medical aid and food for mother and child to compete against poverty and ignorance.

The enquiries and the assistance given by the Municipal nurses and the dispensaries will continue, and when more data are available it may be possible to suggest some practicable remedies.

Table showing mortality amongst infants under 1 year of age from principal causes during the year 1907 compared with Glasgow.

Age.	Small-pox.	Measles.	Diarrhœa and dysentery.	Premature birth.	Debility.	Nervous system.	Respiratory system.	Total deaths under 1 year.	Percentage to each period in Bombay.	Percentage to each period in Glasgow.
									Per cent.	Per cent.
1—30 days ...	...	...	54	186	2,427	243	80	3,056	37	30
1-6 months ...	5	11	247	...	318	693	1,012	2,478	29	37
7-12 months ...	14	24	444	...	105	301	1,424	2,742	33	33
Bombay	19	35	745	186	2,850	1,237	2,516	8,276	...	...
Percentage to the total.	1·2	·4	9·	...	34·	14·	30·	...	...	...
Glasgow	...	97	475	458	1,009	321	633	3,185	...	...
Percentage to the total.	...	3·0	14·	...	31·	10·	19·	...	...	...

	Total mortality.
Bombay	32,687
Glasgow	14,117

Judging by statistics the districts most favourable for infant life would appear to be Thána, Kolába, Sátára, Ratnágiri, Belgaum, Dhárwár, Bijápur,

Surat and Panch Mahâls, and (excluding Sind and Bombay City) the districts of Poona, Ahmednagar, Kánara, Broach, Kaira and Ahmedabad may be cited as most inimical to infant life.

Statistics of Ahmedabad City.

25. The general death-rate in Ahmedabad City rose from 52·09 to 57·22 *per mille*, the mean for the last five years being 58·50. Plague caused 1,531, fever 4,744 and respiratory diseases 2,422 deaths as against 183, 5,542 and 2,302 respectively last year.

There were 3,067 births recorded or 16·93 *per mille* of population, the deaths exceeding the births by 40·29 *per mille*. There were 2,226 deaths registered under one year of age, giving the ratio of 725·79 per 1,000 of births.

This high ratio is undoubtedly fallacious; as, owing to the peculiar local facilities for death registration in Ahmedabad City, fairly correct record of infantile death is forthcoming while the registration of births in the city is notoriously defective.

Deaths by causes.

26. The subjoined table shows the deaths in 1907, arranged according to causes and contrasted with the results for 1906 and with the mean of the preceding five years:—

	Mean for five years, 1902 to 1906.		1907.		1906.	
	No.	Ratio per 1,000 of population.	No.	Ratio per 1,000 of population.	No.	Ratio per 1,000 of population.
Cholera ...	13,945	·75	7,656	·41	46,119	2·49
Small-pox ...	6,056	·33	1,862	·10	4,063	·22
Plague ...	162,573	8·80	93,609	5·06	51,525	2·79
Fever ...	260,381	14·09	260,329	14·09	274,653	14·86
Dysentery and diarrhœa.	58,564	3·17	53,708	2·91	61,736	3·34
Respiratory diseases ...	58,692	3·17	58,068	3·14	60,615	3·28
Injuries ...	6,775	·37	6,799	·37	6,830	·37
Other causes ...	139,881	7·57	124,575	6·74	142,478	7·71
All causes ...	706,863	38·25	606,606	32·82	648,019	35·06

For comments on the causes of deaths *vide* Section VI.

Deaths by months. Annual Form III.

27. The maximum mortality (63,028) occurred in October, and the minimum (36,874) in June. In 1906 the maximum and minimum occurred in April and February respectively (64,291 and 42,597).

28. The recorded death-rates, among the urban and rural population and in the 7 cantonments in British territory, are given in Table VI, Appendix IV. The death-rates for the 8 cantonments in foreign territory will be found in paragraph 32. The urban and rural death-rates were 38·19 and 31·54 *per mille* as against 53·76 and 32·25 in 1906. In 12 collectorates, out of 26, the rural death-rates were in excess of the urban.

Death-rates in rural circles.

29. In 42 rural registration circles the mortality rose above 40 *per mille*, in 60 the death-rate was between 30 and 40, in 44 it was between 25 and 30, in 35 between 20 and 25, whilst in 43 the record was below 20 *per mille* (of the registration circles 31 are in Sind).

Death-rates in town circles.

30. In 6 town circles, out of a total of 56, the recorded death-rates exceeded 50 *per mille*. Dholka, Pandharpur, Wai and Karad returned rates of 82·36, 72·02, 70·13 and 67·75 respectively. The mortality in these towns, except Pandharpur, was very severe from plague. In Pandharpur, out of a total of 2,334 deaths, 1,295 were due to cholera. In Wai, out of a total of 981 deaths, 816 were caused by plague. In Karad, out of a total of 779 deaths, 570 were due to plague.

Death-rate in cantonments in British territory.

31. During the year under report the death-rates in the cantonments, from all causes, were below normal. The highest death-rates were reported from Poona (23·35), Malegaon (22·65), Kirkee (20·47) and Deolali (20·04).

Cantonments in Quasi-Foreign Territory.

Statistics of cantonments in quasi-foreign territory.

32. The following table shows the vital statistics of the civil population of those cantonments which are situated in quasi-foreign territory. The total number of births registered in these cantonments, during the year 1907, was 2,149 against 2,143 in 1906, the birth-rate being 17·80 per mille as against 17·75 in 1906. There were 3,138 deaths, giving a ratio of 25·99 per mille, against 4,857 deaths and a ratio of 40·23 in 1906.

Statement showing the names of Cantonments with population and deaths by diseases for the year 1907.

Cantonments.	Population according to census of 1901.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from								Ratio of deaths per 1,000 of population							
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Injuries.	Other causes.	All causes.
Aden. (Municipal Limits.	36,323	67	537	726	19·99	...	...	1	128	287	16	808	1,240	...	...	·03	3·52	7·90	·44	22 24	34·14
Aden. Purely civil population of Cantonment.	296	7	28	...	...	...	...	...	1	1	...	2	4	...	...	...	4·85	4·85	...	9·71	19·42
Baroda	2,704	1	2,704	61	22·56	...	...	12	9	2	2	31	56	...	...	4·44	3·33	·74	·74	11·46	20·71
Bhuj	741	1·16	638·79	24	32·39	...	...	...	9	1	...	12	22	...	...	...	12·14	1·35	...	16 20	29·69
Deesa	8,566	5	1,713·20	70	8·17	...	...	18	91	1	...	19	129	...	...	2·10	10·62	·12	...	2·22	15·06
Mhow	34,740	6	5,790	236	6·79	...	...	3	100	41	11	708	863	...	...	·09	2·88	1·18	·31	20·38	24·84
Nasirabad ...	22,494	8·58	2,621·68	707	31·43	...	...	...	268	37	4	265	574	...	...	...	11·91	1·65	·18	11·78	25·52
Neemuch ...	14,624	4·52	3,235·40	315	21·54	...	1	...	107	14	7	114	243	...	·07	...	7 32	·96	·48	7·79	16·62
Rajkot	338	·56	602·68	10	29·59	...	...	...	3	1	...	3	7	...	...	...	8·87	2·96	...	8 87	20·71
Total ...	120,736	100·82	1,197	2,149	17·80	...	1	34	716	385	40	1,962	3,138	...	·01	·28	5·93	3·19	·33	16·25	25·99

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Mortality in 1907.

33. In Annual Form No. VII are set forth the deaths from cholera, for each district by months; the number of registration circles affected; and the number of villages from which cholera was reported.

Deaths by Collectorates.

34. In the year 1907 there were 7,656 deaths recorded as due to cholera; contrasted with 46,119 in 1906. A reference to Annual Form No. VII, will show that the disease was practically absent in the Provinces of Gujarát and Sind; whilst the collectorates in the other Registration Districts were more or less affected by the disease. The highest number of deaths 2,144 (or 2·98 per 1,000 of population) took place in the Collectorate of Sholápur; while the Collectorates of Bijápur, Ahmednagar and Poona recorded 994 (or 1·35), 763 (or ·91) and 650 or (0·66) deaths per 1,000 of population respectively. With these exceptions, the incidence of cholera was light. The cholera mortality in the Collectorates of Sátára, Dhárwár, Bombay City, Belgaum and Thána ranged between four and five hundred; while in Kánara, Kolába and Násik between two and three hundred; the mortality in other collectorates affected was very slight.

Monthly mortality.

35. Cholera was present in the Presidency in each month of the year under report. During the first five months, it was confined to the Collectorates of Thána, Bombay City, Ahmednagar, Poona, Belgaum, Dhárwár and Bijápur. But, in June, the epidemic became more active and the Collectorates of Násik and Kánara were added to the list of affected areas. The disease then attained its maximum mortality 2,580, or one-third of the total deaths in July, appearing in Sholápur and Sátára Districts. Of these, 1,731 deaths were reported from Sholápur alone. The number of deaths, however, fell to 1,750 in August; and the epidemic rapidly declined month by month until December, when 6 deaths were reported from Bombay City, 10 from Belgaum and 74 from Kánara Collectorates.

Mortality by seasons.

36. In the hot and dry season the mortality began to rise; and the main incidence of the epidemic fell in the rainy months of July and August, the former contributing the majority of cases. In the cold weather the disease rapidly declined.

Mortality for 20 years, 1888 to 1907 inclusive.

37. The following table shows the total number of deaths from cholera in each of the twenty years ending 1907:—

1888 ...	36,500	1893 ...	18,853	1898 ...	4,368	1903 ...	1,825
1889 ...	32,431	1894 ...	33,588	1899 ...	8,579	1904 ...	13,156
1890 ...	3,259	1895 ...	8,890	1900 ...	163,889	1905 ...	5,396
1891 ...	17,850	1896 ...	35,404	1901 ...	13,600	1906 ...	46,119
1892 ...	42,900	1897 ...	57,109	1902 ...	3,229	1907 ...	7,656

This record shows that the mortality in 1907 exceeded the mortality recorded in the previous five years, namely 1890, 1898, 1902, 1903 and 1905; and was nearly equal to that of the years 1895 and 1899.

Mortality in rural circles.

38. Out of 224 rural circles, 102 (or 46 per cent.) were attacked, against 159 (or 71 per cent.) last year. The chief incidence of the disease fell on the rural circles of Poona, Sholápur, Belgaum and Bijápur in which not a single rural circle was exempt. Ten rural circles were affected in the Collectorate of Sátára; 9 in each of the Collectorates of East Khándesh and Násik; 8 in Thána and Ahmednagar; 7 in Dhárwár and Kánara; and 6 in Kolába. Deaths were reported from 3 tálukas in West Khándesh; 2 in Ratnágiri and Surat; and 1 in Sukkur Collectorate.

Among the affected circles, the highest number of deaths—325—took place in the táluka of Badámi in Bijápur District; 253 in Mádha in Sholápur District; 233 in Hungund in Bijápur; 208 in Haveli in Poona; and 207 in Sheogaon in Ahmednagar Collectorate. Of the remaining affected tálukas, the mortality from cholera ranged between 1 and 2 hundred in 11 of them; between 50 and 100 in 19; while in others it was very low.

Mortality in towns.

39. Out of 56 town circles in the Presidency, 24 (or 43 per cent.) were affected by cholera, against 42 (or 75 per cent.) last year. The highest mortality 1,295 (or 39·96 deaths per 1,000 of population) occurred in Pandharpur town. 431 deaths were recorded in Bombay City, and 91 in Poona. In the other towns affected the mortality from cholera was trivial.

Cholera in cantonments.

40. Out of 7 cantonments in the Presidency 3 were affected by cholera. Six deaths were reported from Poona, 4 from Kirkee, and 3 from Belgaum.

Villages affected by cholera.

41. The disease attacked 702 (or 2·72 per cent.) of the 25,846 villages in the whole Presidency, against 3,129 (or 12·16 per cent.) last year. Of these 702 villages, the largest number 130 (or 11·65 per cent.) were attacked in Bijápur. Cholera deaths were reported from 97 (or 13·55 per cent.) of its villages in Sholápur; from 73 and 71 (or 5 per cent.) of the villages in each of the Collectorates of Sátára and Ahmednagar; and from 66 in Poona. In the other Collectorates affected the number of villages reporting cholera deaths was below 40 in each.

Attacks and deaths.

42. The total number of recorded attacks from cholera was 12,305 with 7,656 deaths, giving a case mortality of 62·22 per cent., against 57·94 last year. The greatest number of attacks was recorded in the Collectorate of Sholápur, with a fatality of 66·59 per cent. In the Collectorates of Bijápur, Ahmednagar and Poona there were 1,877, 1,305 and 1,068 attacks reported, with a corresponding case mortality of 52·96, 58·47 and 60·86 per cent. The percentage of cholera deaths to attacks in the Collectorates of Sátára, Dhárwár, Belgaum, Thána and Bombay City was much higher than the general average of 50 per cent., showing the probability of many attacks remaining unnoticed.

Cholera producing causes and preventive measures adopted.

43. Captain Hutchinson, I.M.S., Deputy Sanitary Commissioner, Southern Registration District, writes:—"There is no evidence to show how the infection was introduced into Bijápur Zilla; except for a few villages in Indi Táluka, and possibly Talikote in Muddebihál Táluka, there seems little reason to blame the Pandharpur fair in July 1907. The epidemic seems to have started on the 7th January at Muttalgeri in Badámi Táluka. This village is on the main road between Rámdurg and Badámi. Two more villages, Kalas and Wadwatti, were infected within 3 days; these villages are both on tributaries of the Malprabha river. Thence the infection spread upstream in the Badámi and Hungund Tálukas, showing in majority of instances that it was carried by man either in his clothes or on his person. In Indi Táluka the epidemic commenced at the end of July; and cases were reported almost simultaneously from 7 villages. The worst epidemic occurred in the small village of Jirankalgi, with a population of 330. 34 cases and 15 deaths were reported. This village is on the main road between Pandharpur and Indi. It is quite possible that the infection came to Indi Táluka from Pandharpur, as the date of infection coincides fairly closely with the exodus of people from the fair. No information as to measures taken has been received. The Collectors were advised to have all wells disinfected with permanganate of potash."

44. Captain Cazaly, I.M.S., Acting Deputy Sanitary Commissioner, Central Registration District, observes:—"Sholápur shows more than half the total deaths from cholera. It is probable that the large gathering of pilgrims for the Ashadi fair in Pandharpur is responsible for a lot of the cholera of this District. Any persons among the pilgrims suffering from cholera would infect

the water-supply of the towns and villages through which they passed to reach Pandharpur, or their destination on leaving that place; as well as infecting the water of the river Bhima, in which the pilgrims bathe and therefore of which they drink; thus causing cholera among the pilgrims actually at Pandharpur. No improvement of the water-supply of Pandharpur would obviate this.

As a matter of fact nearly all the villages and towns on the roads radiating from Pandharpur suffered from an outbreak of cholera.

45. The disease began in February with four cases in Ahmednagar and four in Poona. It was not till July that anything like a large number of deaths occurred; but in that month there were 2,161 deaths, of these 1,731 occurred in the Sholápur District, and this was the first month that any cholera deaths were reported from that district. The Ashádi fair at Pandharpur is held in June and these facts tend to bear out what has already been said."

Small-pox.

Deaths from small-pox.

46. During the year 1907 there were 1,862 deaths (937 males and 925 females) recorded from small-pox against 4,063 in the previous year, and a decennial mean of 5,312.

Deaths since 1896.

47. The number of deaths from small-pox since 1896 is as follows:—

Year.	Number of deaths from small-pox.	Year.	Number of deaths from small-pox.
1896 ...	6,443	1902 ...	2,189
1897 ...	3,835	1903 ...	2,752
1898 ...	1,834	1904 ...	4,289
1899 ...	1,946	1905 ...	16,985
1900 ...	9,885	1906 ...	4,063
1901 ...	5,340	1907 ...	1,862
Total ...	29,283	Total ...	32,140
Mean ...	4,880	Mean ...	5,357

Deaths by Registration Districts and Collectorates.

48. Deaths from small-pox by months and collectorates are shown in annual Form No. VIII.

Small-pox was chiefly confined to the Western, Central and Southern Registration Districts. All the collectorates in Gujarát, except Ahmedabad, enjoyed complete immunity; while those in Sind were practically free. 113 (or 40 per cent.) of the Registration Circles were affected, while the number of villages attacked fell from 1,146 in 1906 to 569 in the year under report. The highest number of deaths (646) was registered in Kánara, next in order comes Dhárwár (477), Belgaum (199), Ratnágiri (116) and Bombay City (85).

Of the total number of deaths 1,371 (or 74 per cent.) were contributed by the Southern Registration District; of these no fewer than 662 occurred among children under 10 years of age; 259 (or 14 per cent.) were registered in the Central, 192 in Western, 34 in Sind and only 6 were recorded in Gujarát.

In the Southern Registration District the epidemic was worst in Kánara; especially in Sirsi and Siddápur tálukás which recorded a ratio of 5·73 and 2·44 respectively per 1,000 of population; the Deputy Sanitary Commissioner remarks:—

"These tálukás are both above-ghát; the difficulties the vaccinators have to contend with are many, and have been realised for years. The greatest difficulty at present is the attitude of the people. The infants are puny, and parents will seldom allow vaccination during the first year of life. In previous years vaccinators experienced great difficulty in maintaining a potent lymph supply. Apart from the attitude of the people and the activity of vaccina the history of small-pox in Kánara is influenced by the physical condition of the vaccinators: thus, it may be said that all the vaccinators in

the above-ghát tálukás suffer from chronic malaria . . . . . The point is that malaria is the indirect cause of much of the small-pox in Kánara."

Deaths by age.

49. Of the total number of deaths, 19 per cent. occurred among children under one year of age; 33 per cent. among children 1—10 years, while the remaining 48 per cent. took place among persons over 10 years of age.

Origin and spread of the disease and the preventive measures adopted.

50. There was an increase in the mortality from small-pox, towards the close of the last year, which continued during the first four months of 1907. From May onward there was a continuous fall till October, when the minimum (21) was reached. Then followed the usual rise in November and December.

The preventive measures adopoted were those usually adopted by this Department, *viz.*, to obtain early information of an outbreak, to send vaccinators to the affected localities to vaccinate all unprotected children, and to encourage re-vaccination. In some instances, such as the epidemic in Sirsi, the Inspector was ordered to supervise the work of vaccination.

FEVER.

Deaths from fever.

51. During the year 1907 there were 260,329 deaths registered under "Fever"; of which 135,125 were among males and 125,204 among females against 274,653 in the previous year, and a decennial mean of 298,759.

Deaths since 1896.

52. Mortality from fever since 1896 is as follows:—

Year.	Number of deaths from fever.	Year.	Number of deaths from fever.
1896 ...	410,143	1902 ...	270,815
1897 ...	405,652	1903 ...	259,704
1898 ...	216,324	1904 ...	251,330
1899 ...	228,433	1905 ...	245,373
1900 ...	543,319	1906 ...	274,653
1901 ...	291,951	1907 ...	260,329
Total ...	2,095,827	Total ...	1,562,234
Mean ...	349,304	Mean ...	260,372

Deaths by Collectorates and Registration Districts.

53. Deaths from fever by months and collectorates are given in annual Form No. IX.

The fever death-rate for the whole Presidency fell from 14·86 in 1906 to 14·09 in 1907; against the decennial mean of 16·68.

The number of deaths registered in all the districts of Sind, Gujarát and the Western Registration District, except Násik, was below that of the preceding year; the decrease was considerable in Sind "due to the fact that malarial fevers were not so severe this year as in 1906." On the other hand, all the Collectorates in the Southern (except Bijápur), and the Central (except Ratnágiri) returned a higher number of deaths. The increase was very noticeable in Kánara Collectorate. As usual the above-Ghat tálukas suffered the most.

Below-ghat tálukás.	Fever ratio per 1,000 of population.	Still-born ratio per 1,000 births.	Infantile mortality ratio per 1,000 births.	Above-ghat tálukás.	Fever ratio per 1,000 of population.	Still-born ratio.	Infantile mortality.
Kárwár ...	14·99	70·10	168·9	Sirsi ...	24·65	95·60	370·5
Kumta ...	13·54	49·65	223·2	Siddápur ...	26·58	78·29	337·1
Ankolá ...	14·52	56·46	231·5	Yellápur ...	25·86	119·61	325·7
Honávar ...	17·25	43·19	234·4	Mundgod ...	20·90	96·00	318·3
Bhatkal ...	15·18	37·55	211·4	Supa ...	27·56	106·67	340·0

Commenting on the above figures the Deputy Sanitary Commissioner, Southern Registration District, observes: "It is reasonable to assume a cause and effect relation between the fever mortality and the great waste in child life.

"It has been questioned whether this mortality is due to malaria or not, but the facts remain that the fever mortality varies directly with the rainfall, and that the mortality is greatest in the months following the monsoon. There is also no doubt that the majority of the inhabitants suffer from enlarged spleen."

Sukkur recorded the highest ratio of 26·51; followed by Ahmedabad (25·92), and Lárkána (22·46); while the lowest was registered in Bombay City (3·74), Belgaum (5·78) and Dhárwár (7·18).

By Registration Districts, Sind recorded the highest ratio (19·25), and the Southern the lowest (8·33).

Deaths by months.

54. The severe epidemic of the malarial fever which broke out in Sind in the last quarter of 1906, continued during the first quarter of 1907; and helped to swell the total of fever mortality. There was a fall from April to June, when the minimum number of deaths (16,492) was registered. From July to the end of the year there was a slow but continuous rise.

Malarial fevers.

55. It would appear from the reports received from the Civil Surgeons that in few towns anti-malarial operations were undertaken. So far as instructions as to the methods of preventing malaria go, nothing remains to be done. The Civil Surgeons issued instructions to the Medical Officers of Dispensaries in the mofussil, and advised the municipalities to allot funds for the adoption of anti-malarial measures.

In Bijápur Town the municipality made an allotment of Rs. 400 for this purpose; and systematic efforts were made during the year to fill in as many pits and hollows and disused wells as possible; with the result that 48 pits—large and small—were either filled in or drained at a total cost of Rs. 218-10-3.

In Násik Town, on the suggestion of the Deputy Sanitary Commissioner, the municipality bought a hand-pump to take out stagnant water from the ditches and holes on the river bank—the breeding places of the mosquitoes. Almost all such places have been cleared or filled up by earth, etc. The municipality spent Rs. 150 on this work.

In Sind, the increase or decrease in malarial fevers respectively depends on the high and low inundation of the Indus. The decrease in malarial fevers in 1907 in Sind is attributed chiefly to the fact of the River Indus being very low.

Measures generally adopted for the prevention of malaria were:—

Drainage of small pools of water, filling up of large pools and disused wells with earth, etc., general cleanliness of roads and gutters, removing of grass weeds, etc., from the surface of tanks and rivers, the distribution of quinine, etc., etc.

Rainfall.

56. *January.*—Rain in light showers in parts of the Deccan except Sholápur and Sátára, and in parts of the Karnátak, Konkan and Gujarát except Kaira, and Panch Maháls.

February.—Rain in light to fair showers in parts of the Deccan and Konkan, and in light to heavy showers in parts of Gujarát. No rain elsewhere.

March.—Light partial showers during the month in parts of Deccan, Kánara and Gujarát and in the Karnátak.

April.—Rain in light to fairly heavy showers in the Deccan and Karnátak. In Konkan and Gujarát light scattered showers.

May.—Practically no rain except scattered showers in Sátára, Belgaum and Dhárwár.

June.—Total fall of the month in excess of the average in Kánara, Ratnágiri, Kolába and Thána and short of the average in Gujarát and Deccan.

July.—The rainfall during the month was in excess of the average in the whole Presidency.

August.—Rain during the month generally in excess of the usual quantity, the excess being specially noticeable in Surat, Kaira and Ahmedabad.

September.—Aggregate fall of the month generally in defect of the average except Poona and Sátára.

October.—Rain during the month was much in defect of the usual fall in the Deccan, Karnátak and Konkan while in Gujarát there was no rain.

November.—Rain in light to fairly heavy showers in Konkan and Karnátak, and in the Deccan it was generally in defect. In Gujarát no rain fell.

December.—Rain during the month was received in light scattered showers in the Karnátak, except Belgaum, and at a few stations in Kánara, Ratnágiri, Sátára and Sholápur.

In the Presidency due to the failure of the monsoon during the autumn of 1907 the prices of food-grain were high, especially during the last two months of the year under report.

Plague.

Deaths from Plague.

57. During the year under report, 93,609 deaths (47,324 males and 46,285 females) were registered under plague against 51,525 in 1906, and a decennial mean of 120,405.

Deaths since 1896.

58. The number of deaths recorded from plague since 1896 is as follows:—

Year.	No. of deaths from plague.	Year.	No. of deaths from plague.
1896	2,086	1902	184,752
1897	46,944	1903	281,269
1898	86,191	1904	223,957
1899	96,596	1905	71,363
1900	33,196	1906	51,525
1901	128,259	1907	93,609
Total ...	393,272	Total ...	906,475
Mean ...	65,545	Mean ...	151,079

It will be seen from the above statement that although there was a continuous fall during the last three years; the mortality from plague showed an increase in 1907.

The following table shows the mortality from plague, by Collectorates, for five years ending 1907 :—

Collectorates.	No. of plague deaths in				
	1903.	1904.	1905.	1906.	1907.
Ahmednagar	21,447	11,979	2,336	863	52
Dhárwár	47,022	22,755	6,219	652	579
Sholápur	25,238	11,419	2,651	168	190
City of Bombay	20,751	13,504	14,171	10,802	6,379
Khándesh	16,163	15,665	6,898	2,605	4,481
Bijápur	15,633	28,282	2,100	51	23
Belgaum	45,021	22,695	5,360	1,628	13,961
Kaira	16,937	19,213	3,092	5,639	12,545
Poona	13,973	8,877	2,079	12,614	2,134
Sátára	28,083	28,629	13,380	5,447	36,397
Ahmedabad	2,697	4,667	1,657	2,992	6,717
Presidency	281,269	223,957	71,363	51,525	93,609

In some Collectorates, such as Ahmednagar and Dhárwár, there has been an unbroken fall in the plague mortality since 1903. Increase in the number of plague deaths took place in the Collectorates of Sholápur, Khándesh, Belgaum, Kaira, Ahmedabad and notably Sátára from 5,447 in 1906 to 36,397 in 1907.

Deaths by Collectorates and Registration Districts.

59. Deaths from plague by Collectorates and months are set forth in Annual Form No. XII.

All the Collectorates in the Presidency, excepting Upper Sind Frontier, were more or less affected. The number of Registration Circles attacked was the same (180) as last year; but the percentage of towns and villages affected rose from 5·07 in 1906 to 7·98 in the year under report. By Registration Districts, the highest mortality (8·92 per mille) occurred in Gujarát, and the lowest (·88) in Sind. More than 92 per cent. of the deaths in the Central, 93 in the Southern and 50 in the Gujarát were contributed by the Sátára, Belgaum and Kaira Collectorates respectively.

The incidence of plague was heavy in Sátára, Kaira and Belgaum Collectorates, 67·20 per cent. of the total plague mortality in the Presidency being recorded in these Collectorates. The highest ratio of deaths (31·76) per 1,000 of population was registered in Sátára against 4·78 in 1906; followed by Kaira (17·51), Belgaum (14·07), Ahmedabad (8·45) and Bombay City (6·65). The death-rate in Poona Collectorate was 2·16 against 12·75 in the previous year.

Effects of plague on the average annual death-rates. Annual Form No. VI, Appendix IV.

60. The effect of plague on the general annual death-rates of districts and towns will be seen on reference to Annual Form No. VI. Though the incidence of plague was generally greater in the year under report, mortality in towns was considerably less. Out of 63 towns, 49 (or 77·78 per cent.) were affected; and the death-rate from plague in Town Circles was 6·30, against 10·88 in the previous year. All the towns in the Sátára and Kaira Collectorates suffered severely; Athni, Dholka, Karáchi, Jambusar, Poona, Yeola and Chopda recorded very high death-rates, while in the remaining towns plague helped to swell the general death-rate.

Deaths by months.

61. Mortality from plague steadily increased during the first quarter of the year; but there was a decline from April till June when the minimum number of deaths (1,110) was registered. From July onward plague deaths showed signs of rapid increase, month after month, till October, when the maximum (18,656) was reached. There was a fall in November; and the number of deaths recorded in December was only 3,803, against 4,801 in the previous year.

Preventive measures adopted.

62. By Government Resolution No. 552-P., dated 26th April 1907, in the General Department (Plague), the control of plague measures in the Presidency was transferred to the Sanitary Commissioner.

The principal preventive measures adopted in dealing with plague are evacuation, rat-destruction and inoculation.

During the year under report 38,514 persons were inoculated with the preventive serum; of these 33,027 were in British territory and the remaining 5,487 in Native States. Five districts were selected for experimental measures, *viz.*, Kaira, Sátára, Belgaum, Thána and Surat; as these were considered to be permanent centres of plague. The duties of the Special Medical Officers on Plague duty in these Collectorates are:—

(*a*) Investigation into the origin and spread of plague;

(*b*) Supervision of inoculators and of the operations of evacuation and rat-destruction.

The number of inoculators employed at one time was 15; out of which 4 were in Sátára and 4 in Poona.

The highest number of inoculations (11,558) was performed in Poona. In Kaira and Sátára, it was 6,738 and 6,108 respectively; while in the City of Bombay 4,982 inoculations were performed during the year.

Deaths among the inoculated.

63. Ninty-two plague cases occurred, among the inoculated of which 41 proved fatal. Most of these cases occurred within a few days of inoculation; and although the persons presented were reported to have had no symptoms of plague at the time of operation, the disease was at the time probably in the stage of invasion. It has also been ascertained that in some cases the full inoculating dose was not given.

Dysentery and Diarrhœa.

Deaths from Dysentery and Diarrhœa.

64. During the year under report 53,708 deaths (28,604 males and 25,104 females) were ascribed to Dysentery and Diarrhœa against 61,736 in 1906 and a decennial mean of 78,875.

Deaths since 1896.

65. The annual deaths, recorded from Dysentery and Diarrhœa, since 1896, are as follows:—

Year.	Number of deaths from Dysentery and Diarrhœa.	Year.	Number of deaths from Dysentery and Diarrhœa.
1896 ...	36,046	1902 ...	58,682
1897 ...	85,966	1903 ...	55,443
1898 ...	56,789	1904 ...	61,470
1899 ...	74,736	1905 ...	55,488
1900 ...	218,243	1906 ...	61,736
1901 ...	60,198	1907 ...	53,708
Total ...	531,978	Total ...	346,527
Mean ...	88,663	Mean ...	57,754

Deaths by Collectorates and Registration Districts.

66. Deaths from Dysentery and Diarrhœa, by months and Collectorates, are given in Annual Form No. X.

The mortality recorded from these causes was generally less in all Collectorates, with a few exceptions, *e. g.*, Kánara which returned 1,389 deaths in the year under report against 832 in 1906. As usual, high ratios were recorded in East and West Khándesh, Belgaum and all Collectorates in the Central Registration District except Ratnágiri. By Registration Districts the highest ratio (4·64) was recorded in the Western and the lowest (·24) in Sind. The Central Registration District returned a ratio of 4·20, the Southern 2·83, and Gujarát ·65.

The Deputy Sanitary Commissioner, Southern Registration District, remarks:—"July, August, September and October were, as usual, the most fatal months. It is impossible to give the right reason for this, but it is probably connected with the water-supply, possibly the washing by heavy rain of soil impurities into the wells or other sources of drinking water."

Deaths by months.

67. These diseases were most prevalent in the rainy months of July, August, September and October (*vide* Annual Form No. X).

Injuries.

Deaths from injuries.

68. During the year 1907, 6,799 persons, of whom 3,829 were males and 2,970 females, met with violent deaths against 6,830 in the previous year and a decennial mean of 7,018.

Deaths since 1896.

69. The numbers of deaths, registered as due to injuries since 1896, are as follows:—

Year.	Number of deaths from Injuries.	Year.	Number of deaths from Injuries.
1896 ...	6,238	1902 ...	7,434
1897 ...	6,907	1903 ...	6,693
1898 ...	6,984	1904 ...	6,333
1899 ...	7,102	1905 ...	6,586
1900 ...	8,224	1906 ...	6,830
1901 ...	7,092	1907 ...	6,799
Total ...	42,547	Total ...	40,675
Mean ...	7,091	Mean ...	6,779

Deaths from injuries for 1906 and 1907 by sexes.

70. The deaths from these causes, arranged by sexes, are given in the following table :—

Causes.	1906.			1907.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,302	1,541	2,843	1,123	1,540	2,663
Poisoning	101	45	146	81	45	126
Hanging	122	55	177	112	83	195
Wounding	528	219	747	545	243	788
Wild beasts	42	21	63	50	19	69
Snake-bite	813	429	1,242	792	447	1,239
Railway	31	8	39	59	6	65
Other causes	983	590	1,573	1,067	587	1,654
Total ...	3,922	2,908	6,830	3,829	2,970	6,799

It will be seen from the above table that, except Railways which showed an increase of 66 per cent., there were only slight variations as compared with the figures of the previous year.

Deaths from snake-bite, by Collectorates.

71. As usual, Ratnágiri returned the highest number of deaths, 248 from snake-bite against 230 in 1906. Next comes Hyderabad with 127 deaths, followed by Thána (107), Lárkhána (76), Kaira (69), Ahmedabad (67) and Thar and Párkar (67). As compared with the previous year there were small variations in the mortality recorded from this cause, the most marked exception being the Sholápur District which reported not a single death in 1907 against 35 in the previous year and a quinquennial mean of 32.

Details of injuries.

72. Of 2,663 deaths from "drowning" 228 were "suicidal," 2,307 "accidental," and 128 were returned as "otherwise;" the latter heading indicates that, when the return was submitted, no decision had been arrived at as to whether the deaths were "suicidal" or "accidental." One hundred and seventy-eight deaths (91·28 per cent.) from "hanging," 71 (56·35 per cent.) from "poisoning" and 36 (4·57 per cent.) from "wounding" were reported to have been suicidal.

There were 513 "suicidal" deaths; of these 246 were males and 267 females.

Respiratory Diseases.

Deaths from Respiratory Diseases.

73. In the year under report there were 58,068 deaths (30,205 males and 27,863 females) registerd under the heading Respiratory Diseases against 60,615 in 1906 and a quinquennial mean of 58,692.

Deaths since 1902.

74. The number of deaths, registered from Respiratory Diseases since 1902, is as follows :—

Year.	Number of deaths from Respiratory Diseases.	Year.	Number of deaths from Respiratory Diseases.
1902 ...	59,379	1905 ...	54,537
1903 ...	59,349	1906 ...	60,615
1904 ...	59,579	1907 ...	58,068
Total ...	178,307	Total ...	173,220
Mean ...	59,436	Mean ...	57,740

Deaths by Registration Districts and Collectorates.

75. Deaths from Respiratory Diseases, by months and Collectorates, are given in Annual Form No. XI.

There were slight variations in the mortality from these causes as compared with the figures of the previous year.

As usual Gujarát returned the highest ratio (6·45), and Sind the lowest (·42).

Deaths from Respiratory diseases by districts and towns are shown in Annual Form No. VI, column 9. As reported by districts, the total deaths amounted to 2·23 per mille, whilst in towns the ratio was 8·48 against 10·82 in the previous year. By towns Ahmednagar recorded the highest ratio of 20·26. All the towns in Gujarát, except those in Panch Mahals, recorded high ratios; whilst those in Sind, except Karáchi and Hyderabad, returned low rates from these causes.

Other Causes.

Deaths from Other Causes.

76. During the year under report 124,575 deaths (63,735 males and 60,840 females) were registered under the heading 'Other Causes' against 142,478 in 1906 and a decennial mean of 179,584.

Deaths since 1896.

77. The number of deaths registered from 'Other Causes' since 1896 is as follows :—

Year.	Number of deaths from "Other Causes."	Year.	Number of deaths from "Other Causes."
1896	100,112	1902	134,952
1897	143,503	1903	144,510
1898	176,335	1904	144,800
1899	254,872	1905	132,666
1900	342,027	1906	142,478
1901	179,694	1907	124,575
Total ...	1,196,543	Total ...	823,981
Mean ...	199,424	Mean ...	137,330

Deaths by Collectorates and Registration Districts.

78. The percentage of deaths recorded from 'Other Causes' to total deaths was highest in Dhárwár (49·44), Násik (38·22), Bijápur (38·09), Kánara (33·87) and Bombay City (30·67), while the lowest figures were noted in Thar and Párkar (·91), Upper Sind Frontier (1·96), Lárkhána (3·10) and Hyderabad (3·37). As usual the Southern Registration District recorded the highest percentage (36·83), and Sind the lowest (5·61).

The highest ratio from 'Other Causes' per 1,000 of population, was registered in Násik (13·89), followed by Kánara (12·84), and Bombay City (12·25).

SECTION VII.

GENERAL HISTORY OF VACCINATION.

79. This section has been omitted from this report and appears separately.

SECTION VIII.

SANITARY WORKS, MILITARY.—No remarks.

SECTION IX.

SANITARY WORKS, CIVIL.

80. During the year ending 31st March 1907 there were 161 Municipalities in the Mofussil with a population of 2,360,183 souls. The total net income of these Municipalities amounted to Rs. 71,32,476-14-11, of which sum Rs. 19,47,918-1-7 were expended on improving water-supply, drainage and conservancy within Municipal limits. The incidence of taxation per head of population has increased from Rs. 1-12-3 to Rs. 1-14-0, while the incidence of income has decreased from Rs. 2-15-7 to Rs. 2-9-8.

81. There were 25 District Local Boards, with 211 Táluka Local Boards. The entire income of these Boards during the year ending 31st March 1907 amounted to Rs. 6,358,510-2-6; and out of this sum Rs. 3,07,778-14-5 were expended on water-supply and drainage.

82. The Bombay Village Sanitation Act, 1889, has been introduced into 243 villages against 239 up to the end of last year.

83. The number of selected villages in which the "Village Sanitary Inspection Book" has been introduced stands at 3,434; during the year under report 462 entries have been made in these books by officers of the Sanitary Department. Total entries made in these books by officers of the Sanitary Department since 1898 number 4,092.

84. A return showing the effect of large and important works connected with drainage and water-supply is appended as Appendix III.

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

85. The office of the Sanitary Commissioner was held by Lieut.-Colonel O. H. Channer, I. M. S., from January 1st to April 15th, the day on which he retired from service, and from 16th April to end of the year by Lieut.-Colonel T. E. Dyson, I. M. S., the permanent Sanitary Commissioner.

86. During the year the following Collectorates were visited :—Karáchi, Hyderabad (Sind), Lárkhána, Thar and Párkar, Ahmedabad, Thána, Poona, Bombay City, Belgaum, Sholápur, Sátára, Khándesh East Division, Kaira and Surat.

87. The tours of the Deputy Sanitary Commissioners are described in the report on Vaccination.

H. C. ARNIM, D.P.H., Lieut.-Col., I. M. S.,
Acting Sanitary Commissioner.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE BOMBAY PRESIDENCY FOR THE YEAR 1907.

At the close of the year the Sanitary Board was constituted as under :—

President.

Surgeon-General J. P. Greany, M.D., I. M. S., Surgeon-General with the Government of Bombay.

Members.

W. Doderet, Esq., I. C. S., Commissioner, Central Division.

The Honouroble Mr. W. L. S. L. Cameron, Assoc. M. Inst. C. E., Chief Engineer, Public Works Department.

Lieutenant-Colonel T. E. Dyson, M.B., D.P.H., I.M.S., Sanitary Commissioner for the Government of Bombay.

M. Visvesvaraya, Esq., B.A., L.C.E., M.I.C.E., Sanitary Engineer and Secretary.

2. The Board met on the 13th September and again on 2nd October and, among other matters, considered proposals for the improvement of the water-supply of Pandharpur and the question of establishment required for the preparation of projects or estimates for sanitary works for Municipalities.

3. Works in progress during the year :—

Karáchi Drainage.—Considerable progress was made in the extension of the Shone system of drainage during the year. Gravitating sewers were laid in three drainage districts of the city and most of the houses in these districts were connected with the drainage system. Two additional night soil hand pail depôts and three cart depôts were completed and began work during the latter half of the year, and these have almost entirely done away with the nuisance from night soil and sullage carts plying in the main thorough-fares of the city. The expenditure during the year was Rs. 1,09,155.

Pandharpur Drainage.—The project costing Rs. 2,00,659 sanctioned by Government in 1906 was put in hand by Municipal agency and a sum of about Rs. 8,000 spent in the construction of the river side collecting drain. The drain when completed will remove the principal source of pollution of river frontage where pilgrims bathe and obtain their supply of drinking water.

Improvements to Jalgaon Water Supply.—A sum of Rs. 41,198 was expended during the year in providing additional catchment area to the storage tank and laying the supply main and the distribution mains in high and low level areas.

Dhulia Filter Beds.—The work of providing filter beds sanctioned during the previous year was put in hand and a sum of Rs. 17,350 exclusive of establishment and tools and plant charges was expended during the official year 1907-08. The filter beds are expected to be ready for use before the rains of 1908.

4. The following projects for sanitary works were under preparation during the year :—

Dhárwár Water Supply.—A complete project estimated to cost Rs. 3,19,497 was prepared by the Executive Engineer, Dhárwár Irrigation, in consultation with the Sanitary Engineer. It was approved by the Municipality in October and was submitted for the sanction of Government after the close of the year.

Hubli Water Supply.—An estimate for urgent improvements to the distribution system estimated to cost Rs. 98,000 was prepared by the Executive Engineer, Dhárwár Irrigation, and submitted to Government during the year. Another estimate for important extensions and improvements including provision for filtering the water, and amounting roughly to about Rs. 3,20,000, was nearly ready towards the close of the year. The Municipality have expressed a desire to carry out both stages of the scheme at once. Proposals for extending the catchment area of the Unkal tank were also under investigation.

Ahmednagar Water Supply.—A preliminary report after an exhaustive enquiry on the spot was prepared by the Sanitary Engineer for the improvement of the Ahmednagar water-supply and proposals roughly estimated to cost Rs. 3,00,000 in the first stage, and Rs. 6½ lakhs when completed, was submitted. The Municipality have resolved to go through with the proposals. The necessary trial pits and borings connected with the preliminary investigations were in progress under the supervision of the Executive Engineer, Ahmednagar.

Hyderabad Water Supply.—Similar rough proposals for the improvement of the water-supply of Hyderabad (Sind) estimated to cost Rs. 4,00,000 on the whole or

Rs. 2,50,000 for urgent works only was submitted by the Sanitary Engineer and the Municipality have resolved to carry out the latter. The investigations for the detailed project have been entrusted to the Executive Engineer, Hyderabad Canals.

Násik Water Supply.—Surveys for a water-supply for Násik from the river Godáveri were in hand and rough comparative estimates of cost were prepared by the Executive Engineer, Násik, after examining about 4 miles of the river bed by means of trial pits and borings.

Pandharpur Water Supply.—A project for improving the water-supply of Pandharpur costing about Rs. 5,17,651 was nearly completed during the year. The proposals provided for a pumping scheme from the river Bhima in preference to the present insecure supply from the Takli Tank. The Sanitary Board discussed and approved the proposals. On account of the large crowds of pilgrims who visit the town (the number in one of the recent fairs exceeded 300,000), a good water-supply for Pandharpur is recognized as a matter of provincial importance.

Thána Water Supply.—Surveys for improving the Thána water-supply, by providing a storage reservoir of sufficient capacity to supply the population at the rate of 20 gallons per head were begun by the establishment of the Sanitary Engineer during the year. The proposals included filtration of water.

Kurla Water Supply.—A revised project for the Kurla water-supply was worked out by the Executive Engineer, Thána, during the year.

Ahmedabad Water Supply.—The Municipality prepared a scheme for improving the water-supply and the drainage system of the city at a cost of Rs. 3½ lakhs. The proposals were submitted to Government towards the close of the year.

Bijápur Water Supply.—The Sanitary Engineer visited the town in the month of December 1907 at the request of the Municipality and submitted a report after the close of the year embodying proposals for a new water-supply.

Ratnágiri Water Supply.—Proposals for improving the water-supply of Ratnágiri were examined and revised proposals for the necessary improvements are being prepared by the Executive Engineer, Ratnágiri and Kolába.

Roha-Ashtami Water Supply.—The Sanitary Engineer inspected the water works and revised the plans and estimates for the proposed improvements to the water-supply of Roha-Ashtami.

Sukkur Water Supply.—A trial well is being sunk in the bed of the river Indus under the supervision of the Executive Engineer, Shikárpur Canals, in connection with the improvements to the water supply.

Surat Drainage.—A contour survey of the city was in progress under the supervision of the Executive Engineer, Surat and Broach, with a view to the preparation of a drainage scheme.

5. The charges incurred during the year in connection with the surveys and preparation of projects for the water-supply of Dhárwár and Násik were borne by Government and towards the close of the year, sanction was given to the entertainment of a staff of temporary surveyors for the preparation of projects under the Sanitary Engineer. Government also issued specific orders promising liberal aid to Municipalities and Local Boards in the prosecution of sanitary works.

6. *The Sanitary Engineer.*—For six months, that is from June to November inclusive, the Sanitary Engineer held charge of the office of the Superintending Engineer, Southern Division, and also that of the Superintending Engineer on Special Duty (Protective Works) in addition to his own duties.

He carried out the usual tour visiting places where the local authorities seemed anxious to effect improvements. A note or report was furnished to the local authorities in connection with every important inspection.

Under orders from Government he also visited Kolhápur and Sángli to advise the State authorities concerned in connection with the water-supply of those towns.

M. VISVESVARAYA, M.I.C.E.,
Secretary to the Sanitary Board, Bombay Presidency.

Poona, 26th May 1908.

APPENDIX II.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31st DECEMBER 1907.

I.—Summary.

The following is a summary of the inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the Harbour and Docks during the year ending 31st December 1907 :—

11,708 vessels of all sorts with 894,848 crew and passengers were examined as against 14,640 vessels with 948,411 crew and passengers during the preceding year.

The clothing and bedding of 92,151 crew and passengers of outgoing and incoming vessels were disinfected. Of these 83,517 were Asiatic and African members of crews, third class or deck passengers, and pilgrims who left the Port of Bombay for ports out of India. The remaining 8,634 were crew, pilgrims and passengers who arrived by vessels on which cases of infectious diseases had occurred.

35 vessels on which cases of infectious diseases had occurred were disinfected. 25 vessels, which carried pilgrims to Jeddah, were thoroughly cleansed and freed from rats. In all 60 vessels of all sorts were disinfected.

54 persons among whom cases of small-pox had occurred were vaccinated.

At the outward and inward inspections, and on board vessels lying in the harbour or docks, 19 cases of plague, 9 cases of cholera, 33 cases of small-pox, 84 cases of measles, 28 cases of chicken-pox, 14 cases of jigger, 1 case of scarlatina and 3 cases of leprosy were detected.

II.—Outgoing Vessels.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P, dated the 14th June 1899, and No. 2671-P, dated the 2nd October 1902, the medical examination of all outgoing vessels, their crews and passengers, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with berth accommodation, and of fourth class and deck passengers who sailed on vessels bound for ports out of India were carried out immediately before they left the Port of Bombay. The inspection of the crews of vessels bound for ports out of India and of all passengers of vessels bound for any port excepting those which are exempt under Government Notifications, General Department (Plague), No. 3963-P, dated the 30th September 1901, and No. 1377-P, dated the 18th April 1902, was conducted by day on shore in sheds specially arranged for the purpose. Disinfection of baggage was done at the Disinfection Station on the Frere Road, near the Prince's Dock, and on the Floating Disinfection Barge lying near the Ballard Pier.

3. During the year under report 11,542 outward bound vessels (including Native sailing craft) with 231,803 crew and 610,098 passengers or a total of 841,901 persons were inspected as against 14,509 vessels with 260,370 crew and 652,519 passengers or a total of 912,889 persons during the preceding year. At these outward inspections 11 cases of plague, 25 cases of small-pox, 1 case of measles, 14 cases of chicken-pox and 1 case of leprosy were detected.

4. Of the 11,542 outgoing vessels, 479 vessels with 47,103 crew and 55,813 passengers left for Aden or Ports in the Red Sea or Europe, 401 vessels with 26,092 crew and 12,351 passengers for other ports out of India, and the remaining 10,662 vessels with 158,608 crew and 541,934 passengers for Indian Ports, including Burmah.

5. The bedding, boxes and suspected articles of clothing, &c., of 43,252 Asiatic and African members of crews and of 37,283 third, fourth class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, similar effects of 2,606 crew and 376 passengers who sailed in Native craft for ports out of India were also disinfected. Thus the total number of outward bound crew and passengers whose clothing, bedding, etc., were disinfected, comes to 83,517 during the year under report as against 96,907 during the year 1906.

6. Disinfection of the clothing and bedding of the crew and passengers of some vessels which proceeded to ports out of India *vid* Karáchi was not carried out at Bombay as the agents preferred to have the disinfection done at Karáchi while the ship was loading cargo there.

7. In addition to the three large Equifex Disinfection Stoves and the Boot and Shoe Disinfector, a Clayton apparatus has been provided for freeing vessels from rats. The apparatus is worked from steam generated by the boiler of the Equifex Disinfection Stove mounted on the Port Health Barge upon which the apparatus is also mounted.

8. The S.S. "Sydney", S.S. "Bigonia", S.S. "Armond Behic", the Hired Transport "Plassy", S.S. "Islanda", S.S. "Madura", S.S. "Delhi", S.S. "Courland", S.S. "Yarra", S.S. "Nera", S.S. "Dumbea", S.S. "Commodore", and S.S. "Indravati" had cases of infectious diseases among their crews or passengers within 12 days after arrival in, or prior to their departure from, this Port. The Bills of Health granted to these vessels mentioned the illness which occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of the disease.

9. Whenever plague developed among members of crews or passengers who were not allowed to sail on vessels for ports out of India, Government were informed in each case of the fact in order that the authorities at the vessel's next port of call might be made acquainted of the occurrence by wire. When a plague case occurred among those who were prevented from sailing on vessels bound for Indian Ports the Port Health Officer communicated the fact to the authorities at the next port at which each such vessel was intended to touch.

III.—Incoming Vessels.

10. In accordance with the rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, *vide* Notification, General Department (Plague), No. 1645-P, dated the 13th March 1900, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P, dated the 31st March 1900, and Notification, General Department, No. 625, dated the 1st February 1905, medical inspection and disinfection of vessels which were actually infected or suspected to be infected with plague, yellow fever, cholera, small-pox, chicken-pox, measles, or scarlatina were carried out. All vessels which arrived from East African Ports were also inspected for the detection of cases of jigger or sleeping sickness.

11. 151 incoming vessels of various kinds with a crew of 11,898 persons and 41,049 passengers were inspected during the year. Of the 151 vessels inspected 24 were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. 4 Troop-ships arrived with 924 crew and 5,263 passengers, among whom 23 cases of measles, 9 cases of chicken-pox and 1 case of scarlet fever had occurred. The clothing and bedding of the patients as well as those of the crew were thoroughly disinfected. 4 vessels arrived from East African Ports with 1,089 passengers, among whom 13 cases of jigger and 1 case of leprosy were detected. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. 6 vessels arrived from Jeddah with 526 crew and 4,496 pilgrims from which 5 cases of small-pox, 3 cases of chicken-pox and 1 case of leprosy were landed at Bombay. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations up-country. 54 persons, who were willing to get themselves vaccinated, were vaccinated. The remaining 10 vessels with 1,189 crew and 900 passengers had on board on arrival or during the voyage 1 case of plague, 3 cases of small-pox, 10 cases of measles, 2 cases of chicken-pox and 1 case of jigger. The vessels and the kit of the persons among whom the cases had occurred were disinfected.

IV.—Infectious Diseases on Vessels in the Harbour or Docks.

12. During the year under report 15 vessels, including Native sailing craft, which were lying in the Victoria and Prince's Docks or off the various bandars in the Harbour, had on board 7 cases of plague and 9 cases of cholera. All these vessels and those mentioned in paragraph 19 of this report were thoroughly disinfected in accordance with the regulations issued under the Epidemic Diseases and the Indian Ports Acts. The particulars of the cases above referred to are shown in Statement No. 2, which is appended to this report.

V.—Port Observation Camp.

13. The camp is constructed of timber and corrugated iron sheets and is situated in Fort Street. Only a few persons out of the total number of rejections at the outward inspections elected to be sent to the camp. Those sent were detained until their temperatures fell to normal or until it was certain that the symptoms from which they were suffering were not due to plague. Among the passengers and members of crews who were sent to the camp 11 developed plague and were transferred to plague hospitals for treatment. The sheds and rooms in which such persons were kept under observation in the camp were thoroughly disinfected with Perchloride of Mercury and were kept unoccupied for some days.

VI.—Disinfection of Ships.

14. During the year under report 60 vessels of all sorts were disinfected under the personal supervision of the Port Health Officer or of one of his staff. Of the 60 vessels 25 were outward bound pilgrim-ships. In accordance with the Government of India's Notification, Home Department (Sanitary), No. 1214, dated the 9th August 1907, before the pilgrims embarked the ships chartered for Jeddah were thoroughly cleansed and freed from rats by means of the Clayton process under the personal direction of the Port Health Officer.

15. The vessels on which cases of cholera had occurred had the drinking water on board discharged into the sea. The water tanks were thoroughly disinfected inside with

a Solution of Permanganate of Potash before they were refilled with a fresh supply of drinking water.

16. In accordance with Government Resolution, General Department, No. 4267, dated the 3rd August 1905, the Port Disinfection Station received, on every Monday, clothing and bedding from various hospitals for disinfection. 360 bundles containing such clothing and bedding were disinfected.

VII.—General Health of the Shipping.

17. During the year 1,044 persons connected with the shipping were admitted into the various hospitals in the city. The Saint George's Hospital admitted 600 European patients, of whom 19 died, 551 were discharged cured and 30 remained under treatment after the 1st January 1908. The Jamsetji Jijibhoy Hospital admitted 64 Native patients, of whom 9 died, and the Goculdas Tejpal Hospital 380 Natives of whom 30 died.

18. No deaths occurred from the effects of cleaning of bilges of ships during the year. There were 158 accidents on board of vessels which were lying in the harbour or docks.

VIII.—Red Sea Pilgrim Traffic.

A.—*Outward Pilgrim Traffic.*

19. Under Government of India's Notification, Home Department (Sanitary), No. 1214, dated the 9th August 1907, the Port of Bombay was opened for the embarkation of pilgrims making pilgrimages to Mecca *vid* Jeddah. Before the pilgrims embarked the ships which were to take them to Jeddah were thoroughly cleansed and freed from rats under the personal direction of the Port Health Officer by means of the Clayton process. The pilgrims were subjected to medical inspection and their clothing and bedding to thorough disinfection before they were allowed to embark.

20. The Clayton apparatus, which has been provided for this Port, was mounted on the Port Health Disinfection Barge and started working simultaneously with the beginning of the Outward Pilgrim Traffic. The following staff was engaged to work the apparatus during the Outward Pilgrim Season :—

1. Engine Driver,
1 Fitter,
1 Stoker, and
2 Lascars.

This staff has been reduced to 1 Engine Driver and 1 Lascar since the Outward Pilgrim Traffic was closed and can be brought up to its full strength during seasons of pressure.

21. The names of the ships, the number of pilgrims carried by them and the dates on which they left Bombay for Jeddah are mentioned below :—

	Name of Vessel.	Number of Pilgrims.	Date of Departure.
1.	S. S. "Islami"	827	18th September 1907.
2.	S. S. "Mohammadi"	709	21st do.
3.	S. S. "Mozaffari"	614	28th do.
4.	S. S. "Zibenghla"	885	2nd October 1907.
5.	S. S. "Ahmadi"	738	5th do.
6.	S. S. "Budrie"	860	7th do.
7.	S. S. "Zamania"	1,225	12th do.
8.	S. S. "Monsoori"	864	18th do.
9.	S. S. "Firoozi"	924	26th do.
10.	S. S. "Islami"	831	31st do.
11.	S. S. "Shah Allum"	811	1st November 1907.
12.	S. S. "Zibenghla"	936	5th do.
13.	S. S. "Mohammadi"	703	11th do.
14.	S. S. "Mozaffari"	615	15th do.
15.	S. S. "Zamania"	1,222	18th do.
16.	S. S. "Shah Noor"	1,203	20th do.
17.	S. S. "Ahmadi"	732	23rd do.
18.	S. S. "Budrie"	865	25th do.
19.	S. S. "Sealda"	1,536	27th do.
20.	S. S. "Monsoori"	862	2nd December 1907.
21.	S. S. "Shah Najam"	1,184	7th do.
22.	S. S. "Shah Allum"	696	8th do.
23.	S. S. "Rahmani"	794	9th do.
24.	S. S. "Zibenghla"	618	14th do.
25.	S. S. "Firoozi"	613	17th do.
	Total ...	21,867	

22. The number of pilgrims who left during this season was more than the average number of pilgrims who leave every year.

23. As far as I have ascertained there was no case of plague among the pilgrims who left for Mecca during the year under report. A Quarantine Camp for medical inspection of pilgrims was established this season as during the previous season at Perim, owing to the discontinuance of segregation of pilgrims at Bombay. All the pilgrim-ships after passing through Perim called at Kamaran where they landed their passengers to undergo 5 days' observation before the Turkish Authorities allowed them to proceed to Jeddah. It was reported that a batch of pilgrims while undergoing observation at Kamaran had three suspicious cases of cholera among them. This resulted in their detention at Kamaran for 12 days. After the expiration of this period the ship which conveyed them was thoroughly disinfected before being allowed to re-embark them for conveyance to Jeddah. They were allowed to land on the day after arrival at Jeddah but the ship was made to unload her cargo on Quarantine Island. It is not known whether the suspicious cases reported by the Doctor of the Quarantine Station at Kamaran were bacteriologically or otherwise proved to be cholera but it is said that they proved fatal.

B.—Inward Pilgrim Traffic.

24. During the year under report 24,293 pilgrims of the previous years' Haj arrived from Jeddah in 33 vessels. The names of ships and the number of pilgrims brought by each vessel, as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay, are tabulated in Statement No. 3, which is attached to this report.

25. The total number of deaths which occurred at sea among the pilgrims was 412. The chief causes were old age, general debility, starvation, pneumonia, dysentery and diarrhoea.

26. Six pilgrim-ships had during their voyage from Jeddah to Bombay 2 cases of plague, 5 cases of small-pox, 4 cases of chicken-pox and 1 case of leprosy. Of these 2 cases of plague and 1 case of chicken-pox were landed at Aden. The remaining 5 cases of small-pox, 3 cases of chicken-pox and 1 case of leprosy were landed at Bombay and sent to hospital for treatment. There was 1 death from small-pox at sea. 54 Pilgrims on small-pox infected ships were vaccinated; the remaining pilgrims were unwilling to get themselves vaccinated although vaccination was offered free of all charges.

27. The clothing and bedding of 4,180 pilgrims among whom plague and small-pox appeared were disinfected after which the pilgrims were made over to the Protector of Pilgrims for despatch to their homes.

IX. Emigration Traffic.

28. Owing to the prevalence of plague in the City of Bombay the Emigration Traffic has been suspended since the year 1897.

X. Sanitary State of the Harbour and Foreshore.

29. The sanitary state of the harbour and of the various bandars, basins and docks was fairly satisfactory.

XI. Cholera, Small-pox and Plague in the City of Bombay.

30. During the year under report 439 deaths from cholera, 86 deaths from small-pox and 6,389 deaths from plague occurred in the City of Bombay.

XII. Establishment.

31. The following list shows the names of the Medical Officers and Subordinates who did duty under the Port Health Officer from time to time during the year under report:—

Names.	From	To	Period. Y.	m.	d.
Dr. H. C. Venis	1st January 1907 ...	11th June 1907 ...	0	8	9
and again ...	4th October 1907 ...	31st December 1907 ...			
Dr. J. W. O. Van Millingen	1st January 1907 ...	31st December 1907 ...	1	0	0
Dr. R. D. Dalal	1st January 1907 ...	31st December 1907 ...	1	0	0
Dr. E. Headmoore	1st January 1907 ...	5th January 1907 ...	0	4	4
and again ...	2nd September 1907 ...	31st December 1907 ...			
Dr. (Miss) S. Smith	1st January 1907 ...	31st December 1907 ...	1	0	0
Miss G. M. A. Jessop	1st January 1907 ...	31st December 1907 ...	1	0	0
Assistant Surgeon H. F. Otto, L.S.M.D. ...	1st January 1907 ...	31st December 1907 ...	1	0	0
Do. D. E. White, L.S.M.D. ...	1st January 1907 ...	7th June 1907 ...	0	5	7
Do. D. E. Barrett, L.S.M.D. ...	14th September 1907 ...	31st December 1907 ...	0	3	17
Hospital Assistant B. M. Bhatt	1st January 1907 ...	31st December 1907 ...	1	0	0
Do. N. B. Pandya	1st January 1907 ...	3rd February 1907 ...	0	11	0
and again ...	4th March 1907 ...	31st December 1907 ...			
Do. G. B. Dalvi	1st January 1907 ...	20th September 1907 ...	0	10	16
and again ...	5th November 1907 ...	31st December 1907 ...			
Do. Sk. Usman Abdul Nabi ...	1st January 1907 ...	16th August 1907 ...	0	7	16
Do. V. K. Kamat	1st January 1907 ...	14th June 1907 ...	0	5	14
Do. Allihussein Jakaodin Hakim ...	21st August 1907 ...	31st December 1907 ...	0	4	11
Do. Framroz H. Anklesaria ...	17th September 1907 ...	31st December 1907 ...	0	3	14
Do. M. L. Patwa	21st September 1907 ...	4th November 1907 ...	0	1	14
Do. K. N. Bhonsle	4th February 1907 ...	3rd March 1907 ...	0	1	0

32. The Medical Officers and Subordinates, as enumerated above, carried out their onerous duties with zeal and tact, and to my entire satisfaction.

33. The Police Staff under Inspector J. T. Hartles worked most satisfactorily and often displayed much tact in trying circumstances.

34. Mr. Ramrao G. Kamalakar and the marginally noted members of the Office Staff under him discharged their duties in a most praiseworthy and exemplary manner, and I have much pleasure in placing on record my appreciation of their devotion to their duty.

Mr. Motilal Bapuji Senjit, 2nd Clerk.
Mr. Shamrao S. Dhurandhar, 3rd Clerk.
Mr. Dattatraya V. Gokhale, 4th Clerk.

35. Owing to illness Mr. Motilal B. Senjit, Second Clerk, became unfit for work and had to proceed on long leave on 21st November 1907, and I much regret to state that he succumbed to the disease from which he was suffering on the 11th February 1908. In his death the Port Health Office has sustained a heavy loss.

36. The Office peons and all the members of the Disinfection and Steam Launch Establishments worked well and to my satisfaction.

37. The undersigned regrets to report the death from general debility of Sheikh Ebrahim Mohamed Abbas, who rendered over 13 years' service as Lascar and Tindal on the Port Health launch.

38. The shipping agents and commanders of vessels as a rule observed the regulations and carried out cheerfully the orders framed in connection with the Venice and Paris Sanitary Conventions.

W. E. JENNINGS, M.D., D.P.H., Lieut.-Colonel, I. M. S.,
Acting Health Officer of the Port.

Bombay, Port Health Office,
Town Customs House, dated 7th April 1908.

TABLE No. 1.

The following tabular statement gives a summary of the Shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1907 :—

Vessels, including Country Craft.	Total Number of Vessels.	Number of Vessels inspected.	Number of Persons inspected, including crew on Vessels.	Number of Native crew and 3rd class or Deck passengers disinfected during the year.	Number of Vessels disinfected.	Number of Persons vaccinated.	Diseases and Number of Cases of each.							
							Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Scarlatina.	Leprosy.
1907.														
Entered	34,848	151	52,947	8,634	20	54	1	...	8	33	14	14	1	2
Left	38,863	11,542	841,901	83,517	25		11	...	25	1	14	...	...	1
In harbour during the year	1,177	15	.....	.....	15		7	9	...	...	...	...	...	...
Total ...	74,888	11,708	894,848	92,151	60	54	19	9	33	34	28	14	1	3
Total for 1906 ...	90,492	14,640	948,411	105,302	80	103	33	7	123	11	37	7	...	1

TABLE No. 2.

The following table includes all Steamers, Square-rigged Vessels and Native Craft which became infected while lying in the Port of Bombay during the year 1907 :—

Months.	Number of Persons who were attacked with Plague at Bandars and in the Docks.		Total Number of cases of infectious diseases in the Bombay Harbour.											
			Total Number of infected Vessels.	Cholera.		Small-pox.		Measles.		Chicken-pox.		Plague.		Scarlatina.	
	Cases.	Deaths.		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1907.															
January ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March ...	...	...	2	...	...	...	...	...	...	...	...	2	2	...	...
April ...	...	...	2	1	...	...	...	...	...	...	...	2	1	...	...
May ...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	...
June ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August ...	...	...	5	5	4	...	...	...	...	...	...	...	...	...	...
September ...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
October ...	...	...	2	1	...	...	...	...	...	...	...	1	1	...	...
November ...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...
December ...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...
Total ...			15	9	6	...	...	...	...	...	...	7	5	...	...
Total for 1906 ...			27	7	5	5	...	2	...	2	...	9	6	...	...

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

TABLE No. 3.

Statement showing the number of Pilgrims who returned to Bombay from Mecca by vessels during the year 1907:—

No.	Name of Ship.	Date of Arrival.	Number of Crew.	Number of Pilgrims.	Number of deaths during voyage.	Number of Pilgrims disinfected.	Number of cases of infectious diseases on board and during voyage.
1	S. S. "Zaida" ...	15th February 1907 ...	129	878	12	...	
2	S. S. "Ahmadi" ...	18th do. ...	78	705	17	...	
3	S. S. "Shah Ameer" ...	19th do. ...	79	736	12	...	
4	S. S. "Majidi" ...	19th do. ...	79	743	14	...	
5	S. S. "Shah Noor" ...	20th do. ...	107	856	21	683	1 case of plague landed at Aden, 1 case of chicken-pox at Bombay, 1 case of small-pox detected at the Disinfection shed.
6	S. S. "Xema" ...	21st do. ...	83	566	9	...	
7	S. S. "Narbudda" ...	22nd do. ...	106	560	13	...	1 case of leprosy.
8	S. S. "Shah Najam" ...	23rd do. ...	106	886	22	796	1 case of chicken-pox landed at Aden, and 1 case of chicken-pox landed at Bombay on arrival.
9	S. S "Islami" ...	23rd do. ...	79	748	18	...	
10	S. S. "Mahommedi" ...	23rd do. ...	76	681	19	675	1 case of plague landed at Aden.
11	S. S. "Monsoori" ...	24th do. ...	81	802	22	...	
12	S. S. "Firoozi" ...	25th do. ...	79	862	32	...	
13	S. S. "Jumna" ...	27th do. ...	138	1,256	19	...	
14	S. S. "Haidari" ...	1st March 1907 ...	73	417	9	...	
15	S. S. "Tientsin ...	1st do. ...	91	698	38	814	1 death from small-pox during voyage.
16	S. S. "Shah Allum" ...	7th do. ...	84	629	6	...	
17	S. S. "Mozaffari" ...	10th do. ...	83	587	6	...	
18	S. S. "Naseri" ...	11th do. ...	65	413	9	...	
19	S. S. "Ahmadi" ...	30th do. ...	72	714	11	...	
20	S. S. "Jumna" ...	31st do. ...	134	1,274	7	...	
21	S. S. "Shah Noor" ...	3rd April 1907 ...	110	961	16	...	1 case of chicken-pox among the pilgrims.
22	S. S. "Islami" ...	8th do. ...	79	834	4	820	1 case of small-pox among the pilgrims.
23	S. S. "Naderi" ...	13th do. ...	67	401	7	392	3 cases of small-pox.
24	S. S. "Shah Najaf" ...	14th do. ...	100	543	7	...	
25	S. S. "Monsoori" ...	18th do. ...	87	816	4	...	
26	S. S. "Firoozi" ...	21st do. ...	84	914	7	...	
27	S. S. "Majidi" ...	27th do. ...	81	762	13	...	
28	S. S. "Shah Najam" ...	6th May 1907 ...	104	827	13	...	
29	S. S. "Mahommadi" ...	20th do. ...	75	679	6	...	
30	S. S. "Shah Noor" ...	31st do. ...	107	282	2	...	
31	S. S. "Firoozi" ...	5th June 1907 ...	83	917	7	...	
32	S. S. "Shah Najam" ...	29th do. ...	108	465	1	...	
33	S. S. "Ahmadi" ...	2nd August 1907 ...	69	711	14	...	
		Total ...	2,976	14,293	412	4,180	

APPENDIX III.

The following table shows when the drainage and water-works were completed and the average annual death-rate since their completion and the average annual death-rate for the five-year period preceding the introduction the and ratio for rural circles and districts and the number of deaths from plague with their ratios :—

Name of District	Táluka.	Town.	Date of completion of work of		Average annual death-rate since the introduction of drainage system or water-supply or both.	Average annual death-rate for the five-year period preceding the introduction of drainage system or water-supply or both.	Ratio of rural circle excluding the towns for the year 1907.	Ratio for district excluding the towns for the year 1907.	Number of deaths from plague during the year.	
			Drainage	Water-supply.					Number.	Ratio per 1,000 of population.
1	2	3	4	5	6	7	8	9	10	11
.....	.....	Bombay ..	*a* 1879	*b* 1892	55·61	Not available	...	...	6,379	6·65
West Khándesh ...	Dhulia ...	Dhulia ..	...	1896	47·34	32·50	30·90	34·28	1	·04
Ahmednagar ...	Ahmednagar ...	Ahmednagar ...	...	1897	63·24	55·65	29·72	33·75	5	·14
Surat ...	Olpád ...	Surat ...	...	1898	48·43	39 77	35·10	31·80	53	·44
Ahmedabad ...	Daskroi ...	Ahmedabad ...	*c* 1893	1891	60·83	45 21	38·14	38·86	1,531	8·42
Karáchi ...	Karáchi ...	Karáchi ...	1895	1894	60·71	35·15	6·98	13·29	2,529	22·40
Sukkur ...	Sukkur ...	Sukkur ...	...	1895	32·72	28·70	30·53	27·28	88	2·85
Thána ...	Sálsette ...	Bándra ...	...	1896	41·04	23·01	26·21	29·05	59	2·69
Kolába ...	Panvel ...	Panvel ...	...	1895	39·29	19·50	28·23	28·90	2	·20
Dhárwár ...	Hubli ...	Hubli ...	...	1894	41·79	25·70	26·76	23·89	...	..
Ahmedabad ...	Viramgám ...	Viramgám ...	*d* 1893	...	61·72	69·28	40·51	38·86	4	·21

a Drainage works commenced in 1879 still in progress.

b Tansa water works completed in 1892. Besides this there are Vehar and Tulsi Water Works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

GENERAL POPULATION AND VITAL STATISTICS.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1907.*

1	2	3			4			5			6	7	8	9		
No.	Districts.	Population according to Census of 1901.			Number of Births registered.			Ratio of Births per 1,000 of Population.			Number of Males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	Mean ratio of Births per 1,000 during previous five years.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	West Khándesh ...	237,085	232,569	469,654	13,352	12,927	26,279	23·43	27 52	55·95	103·29	32·44	..	25·38	24·06	49·44
2	East Khándesh ..	484,480	472,671	957,151	25,240	23,859	49,099	26·37	24·92	51·29	105·79	16·06	..			
3	Násik	412,647	402,702	815,349	18,109	17,561	35,670	22·21	21·53	43·74	103·12	7·41	..	23·03	21·74	44·78
4	Thána	421,931	388,901	810,832	12,817	12,031	24,848	15·80	14·84	30·64	106·53	1·50	..	16·08	17·22	35·30
5	City of Bombay ...	600,599*	358,938*	959,537*	10,105	9,103	19,208	10·53	9·49	20·02	111·01	..	19·92	12·52	11·69	24·21
6	Kolába	304,412	301,095	605,507	9,937	9,182	19,117	16·41	15·16	31·57	108·20	2·93	..	16·82	16·03	32·85
	Central Registration District.															
7	Ahmednagar	417,038	419,779	836,817	19,371	18,103	37,474	23·15	21·63	44·78	107·00	11·14	..	21·97	20·91	42·88
8	Poona	498,248	490,854	989,102	17,531	16,318	33,849	17·72	16·50	34·22	107·43	1·11	...	17·85	16·67	34·51
9	Sholápur	362,569	358,018	720,587	14,403	13,556	27,959	19·99	18·81	38·80	106 25	8·85	..	18·62	17·61	36·23
10	Sátára	568,764	577,266	1,146,030	18,605	17,566	36,171	16·23	15·33	31·56	105·91	..	25·19	16·96	15·89	32·85
11	Ratnágiri	547,499	620,376	1,167,875	17,826	17,313	35,139	15·26	14·82	30·08	102·96	9·44	..	15·08	14·36	29·43
	Southern Registration District.															
12	Belgaum	501,087	491,175	992,262	15,928	15,288	31,216	16·05	15·41	31·46	104·19	..	7·46	16·67	15·99	32·66
13	Dhárwár	560,567	552,045	1,112,612	16,901	16,275	33,176	15·19	14·63	29·82	103 85	5·65	..	16·11	15·43	31·54
14	Bijápur	367,997	367,403	735,400	15,433	15,043	30,476	20·99	20·46	41·44	102·59	18 38	..	18·80	18·31	37·11
15	Kánara	236,003	218,414	454,417	6,247	6,092	12,339	13·75	13·41	27·15	102·54	..	10·86	15·85	15·14	30·99
	Gujarát Registration District.															
16	Surat	317,709	319,173	636,882	11,798	10,899	22,697	18·52	17·11	35·63	108·25	5·18	..	18·73	17·75	36·48
17	Broach	143,504	143,225	291,729	65,24	6,422	12,946	22·36	22·01	44·37	101·59	7·00	...	21·92	20·79	42·71
18	Kaira	375,599	340,654	716,253	14,435	12,753	27,188	20·16	19·06	39·22	113·19	..	9·26	19·34	17·47	36·81
19	Panch Mahals ..	132,035	128,968	261,003	5,988	5,892	11,880	22·94	22·58	45·52	101·63	24·18	..	22·50	21·46	43·96
20	Ahmedabad	407,626	387,718	795,344	13,396	11,925	25,321	16·84	14·99	31·83	112·34	..	11·98	16·53	15·11	31·64
	Sind Registration District.															
21	Karáchi	246,241	196,509	442,750	5,435	4,818	10,253	12·28	10·88	23·16	112·81	·77	...	13·06	11·32	24·37
22	Hyderabad	543,951	444,524	988,475	8,499	5,994	14,493	8·00	6·06	14·66	141·79	..	4·78	10·62	7·79	18·41
23	Thar and Párkar ..	202,707	161,162	363,869	4,360	3,269	7,569	11·82	8·98	20·80	131·54	..	·30	9·95	7·56	17·51
24	Lárkhána	354,103	301,980	656,083	6,964	5,469	12,433	10·61	8·34	18·95	127·31	..	4·81	12·77	10·23	23·0
25	Sukkur	281,592	241,327	522,919	5,741	4,534	10,275	10·93	8·67	19·65	126·62	..	0·28	14·42	11·85	26·27
26	Upper Sind Frontier..	129,838	102,147	231,985	1,984	1,474	3,458	8·55	6·35	14·91	134·60	..	2·94	11·79	8·97	20·76
	Total for the Presidency ..	9,529,473	8,951,890	18,481,362	316,867	93,66	610,533	17·14	15·89	33·03	107·90	·21	...	17·37	16·10	33·47

* Population according to the Census of 1906.

ANNUAL FORM NO. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1907.*

1	2	3	4	5			6		7			8
Serial Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS OF 1901).			BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	West Khándesh	5,496	85	237,085	232,569	469,654	23,279	55·95	8,154	7,589	15,743	107·44
2	East Khándesh	4,545	211	484,480	472,671	957,151	49,099	51·29	17,385	16,340	33,725	106·40
3	Násik	5,850	139	412,647	402,702	815,349	35,670	43·74	15,425	14,198	29,623	108·64
4	Thána	3,573	227	421,931	388,901	810,832	24,818	30·64	12,437	11,142	23,629	111·12
5	City of Bombay	22	43,615	600,599*	358,938*	959,537*	19,208	20·02	21,728	16,598	38,326	130·91
6	Kolába	2,131	284	304,412	301,095	605,507	19,117	31·57	8,993	8,350	17,643	107·70
	Central Registration District.											
7	Ahmednagar	6,586	127	417,038	419,779	836,817	37,474	44·78	14,593	13,505	28,098	108·06
8	Poona	5,349	185	498,248	490,554	989,102	33,849	34·22	17,126	15,627	32,753	109·59
9	Sholápur	4,541	159	362,569	358,018	720,587	27,959	38·80	11,203	10,377	21,580	107·96
10	Sátára	4,825	238	568,764	577,266	1,146,030	36,171	31·56	32,519	32,526	65,045	99·98
11	Ratnágiri	3,998	292	547,499	620,376	1,167,875	35,139	30·08	12,472	12,229	24,701	101·98
	Southern Registration District.											
12	Belgaum	4,649	213	501,087	491,175	992,262	31,216	31·46	19,547	19,068	38,615	102·51
13	Dhárwár	4,602	242	560,567	552,045	1,112,612	33,176	29·82	13,631	13,269	26,900	102·73
14	Bijápur	5,669	129	367,997	367,403	735,400	30,476	41·44	8,670	8,365	17,035	103·65
15	Kánara	3,945	115	236,003	218,414	454,417	12,339	27·15	9,116	8,157	17,273	111·76
	Gujarát Registration District.											
16	Surat	1,653	385	317,709	319,173	636,882	22,697	35·63	9,817	9,577	19,394	102·51
17	Broach	1,467	199	148,504	143,225	291,729	12,946	44·37	5,346	5,555	10,901	96·24
18	Kaira	1,595	449	375,599	340,654	716,253	27,198	39·22	16,438	17,381	33,819	94·57
19	Panch Mahális	1,603	162	132,035	128,968	261,003	11,880	45·52	2,817	2,753	5,570	102·25
20	Ahmedabad	3,816	208	407,626	387,718	795,344	25,321	31·83	17,243	17,600	34,843	97·97
	Sind Registration District.											
21	Karáchi	11,971	37	246,241	196,509	442,750	10,253	23·16	5,369	4,548	9,917	118·05
22	Hyderabad	8,291	119	543,951	444,524	988,475	14,493	14·66	10,734	8,498	19,232	126·31
23	Thar and Párkar	13,690	27	202,767	161,162	363,869	7,569	20·80	4,298	3,381	7,679	127·12
24	Lárkhána	4,762	138	354,103	301,980	656,083	12,433	18·95	8,518	7,074	15,592	120·41
25	Sukkur	5,731	91	281,592	241,327	522,919	10,275	19·65	8,083	7,047	15,130	114·70
26	Upper Sind Frontier ...	2,621	81	129,838	102,147	231,985	3,453	14·91	2,228	1,912	4,140	116·53
	Total for the Presidency...	122,984	150	9,529,472	8,951,890	18,481,362	619,533	33·03	313,890	292,716	606,606	107·23

1	2	9										10		
Serial Number.	Districts.	DEATHS PER 1,000 OF POPULATION FROM.							All causes.			MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.													
1	West Kándesh	·04	...	2·65	15·35	9·13	2·76	·24	3·35	34·40	32·63	33·52	43·81	42·58	43·18
2	East Khándesh	·14	·01	3·38	11·33	10·13	3·53	·27	6·44	35·68	34·44	35·23			
3	Násik	·26	·02	·74	14·89	2·32	3·92	·28	13·89	37·38	35·26	36·33	44·51	42·47	43·50
4	Thána	·52	·03	·88	18·72	1·16	·44	·61	6·27	29·48	28·77	29·14	31·62	30·84	31·15
5	City of Bombay	·45	·09	6·65	3·74	3·60	12·35	·83	12·25	36·18	46·24	39·94	58·28	71·15	63·21
6	Kolába	·41	·09	·63	17·30	1·98	·62	·53	7·28	29·54	27·73	28·64	33·96	32·18	33·08
	Central Registration District.														
7	Ahmednagar	·91	·06	·06	11·35	6·56	4·84	·31	8·99	34·99	32·17	33·58	42·20	40·84	41·54
8	Poona	·65	·02	2·16	14·52	4·10	3·88	·29	7·49	34·37	31·83	33·11	42·02	40·32	41·10
9	Sholápur	2·98	·03	·27	15·57	5·56	1·42	·24	3·89	30·89	28·98	29·95	44·17	44·20	44·18
10	Sátára	·43	·04	31·76	12·60	4·45	·89	·31	6·28	57·17	56·35	56·76	42·97	43·91	43·44
11	Ratnágiri	·01	·10	·33	11·79	1·52	1·59	·41	5·40	22·71	19·72	21·15	23·36	20·64	21·91
	Southern Registration District.														
12	Belgaum	·40	·20	14·07	5·78	4·40	2·44	·40	11·22	39·01	38·82	38·92	47·34	47·91	47·60
13	Dhárwár	·40	·43	·52	7·18	1·53	1·90	·27	11·96	24·32	24·04	24·18	47·39	47·10	47·23
14	Bijápur	1·35	·07	·03	7·70	2·53	2·26	·40	8·82	23·56	22·74	23·16	42·96	41·71	42·33
15	Kánara	·59	1·42	·89	17·77	3·06	·98	·46	12·84	38·63	37·35	38·01	31·36	30·55	30·98
	Gujarát Registration District.														
16	Surat	·02	...	4·25	14·94	·57	7·40	·38	2·89	30·89	30·01	30·45	40·26	40·19	40·23
17	Broach	·00	...	5·56	19·14	·51	·54	·33	5·29	36·00	38·79	37·37	41·41	43·85	42·61
18	Kaira	...	...	17·51	11·63	1·07	9·32	·37	7·32	43·76	51·02	47·22	47·11	54·33	50·54
19	Panch Mahális	...	...	1·91	15·24	·18	·68	·41	2·92	21·33	21·35	21·34	27·71	28·91	28·30
20	Ahmedabad	...	·01	8·45	25·92	·54	4·99	·32	3·58	42·30	45·29	43·81	44·10	44·55	44·32
	Sind Registration District.														
21	Karáchi	...	·03	5·98	10·27	·38	1·03	·30	4·41	21·80	23·14	22·40	27·57	28·34	27·94
22	Hyderabad	...	·00	·04	17·36	·48	·71	·28	·66	19·78	19·12	19·46	19·21	19·58	19·37
23	Thar and Párkar	...	...	·00	20·53	·03	·05	·31	·19	21·20	20·98	21·10	20·86	20·69	20·79
24	Lárkhána	...	·02	·10	22·46	·04	·05	·36	·73	24·06	23·43	23·77	23·32	24·64	23·93
25	Sukkur	·03	·00	·21	26·51	·14	·23	·33	1·49	28·70	29·20	28·93	23·89	26·07	24·90
26	Upper Sind Frontier ...	...	·00	·00	17·13	·01	·03	·25	·35	17·16	18·72	17·85	16·60	18·66	17·56
	Total for the Presidency...	·41	·10	5·06	14·09	2·91	3·14	·37	6·74	32·94	32·70	32·82	38·10	38·40	38·25

* Population according to the Census of 1906.

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the months of the year 1907.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	West Khándesh	1,473	1,247	1,470	1,158	1,089	937	1,050	1,531	1,887	1,512	1,245	1,144	15,743	1
2	East Khándesh	2,446	2,667	2,806	2,407	3,586	2,154	2,635	3,551	4,257	3,493	2,407	2,316	33,725	2
3	Násik	2,440	1,979	2,300	2,118	2,002	2,204	2,763	3,463	2,965	2,593	2,443	2,348	29,623	3
4	Thána	2,727	2,307	2,632	1,807	1,700	1,453	1,287	2,028	2,073	1,833	1,796	1,923	23,629	4
5	City of Bombay	2,928	3,314	5,472	4,612	2,970	2,308	2,374	3,110	3,027	2,816	2,581	2,814	38,326	5
6	Kolába	1,966	1,736	1,736	1,331	1,178	1,209	1,244	1,698	1,454	1,257	1,219	1,315	17,343	6
	Central Registration District.														
7	Ahmednagar	1,618	1,365	1,897	1,739	2,259	2,629	3,639	3,608	3,003	2,435	2,074	1,829	28,093	7
8	Poona	2,436	1,985	2,578	2,290	2,486	2,493	2,521	3,646	3,149	3,463	2,874	2,509	32,753	8
9	Sholápur	1,100	961	1,165	1,098	1,424	1,365	4,177	3,162	2,322	1,890	1,579	1,237	21,580	9
10	Sátára	2,817	2,695	2,954	2,333	2,247	2,289	4,168	7,755	12,489	15,004	6,476	3,804	65,045	10
11	Ratnágiri	2,282	2,086	2,258	1,841	1,795	1,789	2,020	2,310	2,028	2,041	2,035	2,216	24,701	11
	Southern Registration District.														
12	Belgaum	2,007	2,068	2,462	2,006	2,126	2,453	2,934	4,193	5,562	5,995	3,896	3,853	38,615	12
13	Dhárwar	2,357	2,273	2,379	2,060	2,124	2,020	2,216	2,222	2,211	2,294	2,274	2,470	26,900	13
14	Bijápur	1,059	938	1,271	1,086	1,417	1,699	1,651	1,822	1,692	1,617	1,309	1,394	17,036	14
15	Kánara	1,610	1,580	1,643	1,358	1,187	1,272	1,338	1,503	1,488	1,333	1,330	1,652	17,273	15
	Gujarát Registration District.														
16	Súrat	1,939	1,943	2,150	1,575	1,291	1,170	1,390	1,734	1,849	1,420	1,414	1,519	20,394	16
17	Broach	889	859	1,129	914	764	603	749	963	1,250	1,105	857	819	10,901	17
18	Kaira	4,557	4,906	6,001	3,380	1,683	1,399	1,692	1,810	2,131	2,342	1,928	1,990	33,819	18
19	Panch Mahals	734	612	614	449	381	315	278	365	422	404	432	504	5,570	19
20	Ahmedabad...	4,003	3,825	5,018	3,470	2,010	1,367	1,502	1,901	2,896	2,930	2,849	3,072	34,843	20
	Sind Registration District.														
21	Karáchi	1,245	907	1,325	1,232	808	578	603	473	572	632	745	797	9,917	21
22	Hyderabad	3,709	2,391	1,957	1,417	1,282	1,015	965	906	961	1,248	1,545	1,836	19,232	22
23	Thar and Párkar	1,544	1,059	1,093	532	442	389	326	310	336	379	524	745	7,679	23
24	Lárkháua	2,722	2,125	1,623	1,133	934	782	705	660	810	1,155	1,526	1,417	15,592	24
25	Sukkur	2,663	1,657	1,536	861	978	758	705	611	784	1,382	1,571	1,624	15,130	25
26	Upper Sind Frontier ...	665	412	329	233	261	224	233	172	224	444	495	448	4,140	26
	Total for the Presidency.	55,966	49,947	57,908	44,503	39,474	36,874	45,565	55,507	61,815	63,023	49,424	46,695	666,606	
	Ratio of deaths per 1,000 in each month...	3·03	2·70	3·13	2·41	2·14	2·00	2·46	3·00	3·34	3·41	2·67	2·53	32·82	

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	West Khándesh ...	2,714	2,361	1,920	1,897	242	270	201	236
2	East Khándesh	5,225	4,371	4,287	4,304	653	781	508	560
3	Násik	4,548	3,650	3,625	3,665	691	693	374	415
4	Thána	2,374	2,003	1,719	1,711	665	642	433	398
5	City of Bombay	4,483	3,899	1,690	1,796	604	742	1,023	859
6	Kolába	1,901	1,545	1,268	1,243	417	469	273	247
	Central Registration District.								
7	Ahmednagar	4,775	3,856	3,291	3,157	565	557	291	294
8	Poona	4,430	3,523	3,296	2,838	707	761	595	574
9	Sholápur	2,877	2,322	2,083	1,989	843	866	851	689
10	Sátára	3,378	2,847	4,344	4,476	3,182	3,528	2,739	2,942
11	Ratnágiri	1,905	1,584	1,492	1,520	518	598	380	410
	Southern Registration District.								
12	Belgaum	2,637	2,301	3,281	3,414	1,687	1,915	1,555	1,540
13	Dhárwár	3,039	2,452	2,688	2,888	892	843	479	483
14	Bijápur	2,099	1,752	1,566	1,667	526	498	310	278
15	Kánara	1,679	1,449	863	928	368	408	264	254
	Gujarát Registration District.								
16	Surat	2,077	1,735	1,476	1,413	476	502	443	506
17	Broach	1,592	1,536	1,060	1,053	175	175	167	185
18	Kaira	3,053	2,939	2,513	2,227	562	632	903	943
19	Panch Mahals	736	677	428	365	124	94	93	101
20	Ahmedabad	3,315	3,001	2,446	2,308	517	583	679	827
	Sind Registration District.								
21	Karáchi	1,234	1,105	549	493	250	267	255	231
22	Hyderabad	1,579	1,370	1,178	983	424	360	304	243
23	Thar and Párkar	668	573	346	282	146	117	177	95
24	Lárkhána	1,295	1,153	835	711	387	344	282	191
25	Sukkur	1,680	1,445	1,080	1,123	383	368	183	189
26	Upper Sind Frontier ...	403	377	325	293	148	124	74	45
	Total for the Presidency ...	65,696	55,826	49,652	48,774	16,102	17,137	13,846	13,735
	Population according to Census of 1901	207,605	202,164	921,002	940,545	1,344,614	1,286,485	1,235,171	1,001,501
	Ratios per 1,000 living ...	316·45	276·14	53 91	51·85	12·01	3·3 2	11·21	13·71

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1907.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	No.
176	250	444	527	631	527	537	345	492	363	797	813	1
385	493	952	1,233	1,121	1,104	1,087	779	1,082	761	2,085	1,954	2
295	422	828	1,036	1,283	1,061	1,073	764	993	741	1,715	1,751	3
406	411	1,231	1,339	1,571	1,281	1,419	961	1,128	836	1,486	1,619	4
1,803	1,448	4,302	2,903	2,994	1,543	1,886	951	1,410	1,013	1,533	1,444	5
257	264	757	927	926	826	950	715	1,010	756	1,234	1,358	6
288	420	735	923	1,024	985	892	585	828	694	1,904	2,034	7
465	626	1,281	1,499	1,469	1,285	1,359	1,040	1,245	1,028	2,279	2,453	8
689	749	817	858	758	649	599	547	593	574	1,093	1,134	9
2,190	2,639	4,020	4,483	3,730	3,430	3,119	2,695	2,676	2,282	3,141	3,204	10
406	418	1,052	1,179	1,115	1,135	1,172	914	1,357	1,073	3,075	3,398	11
965	858	2,005	2,162	1,987	1,853	1,787	1,392	1,511	1,203	2,132	2,430	12
326	408	921	1,271	1,103	1,084	1,217	860	1,122	951	1,844	2,029	13
184	237	507	704	559	550	749	536	765	595	1,405	1,548	14
273	330	915	1,020	1,235	934	1,187	785	1,121	754	1,211	1,265	15
381	420	845	1,119	952	991	931	750	867	652	1,369	1,489	16
177	152	455	565	471	524	420	424	376	359	453	582	17
941	818	2,125	2,305	2,077	2,487	1,750	1,887	1,413	1,487	1,096	1,656	18
108	102	261	343	345	335	275	221	216	247	200	269	19
1,019	885	2,539	2,523	2,067	2,139	2,060	2,032	1,524	1,709	1,077	1,593	20
234	232	709	666	665	498	554	337	372	214	547	505	21
369	371	1,170	1,219	1,525	1,153	1,521	952	1,071	652	1,593	1,195	22
169	156	519	515	649	472	643	421	436	294	545	456	23
284	275	828	982	1,232	1,003	1,145	741	835	527	1,392	1,137	24
271	266	701	789	890	748	871	610	802	506	1,222	1,003	25
82	67	174	233	237	239	255	168	196	115	334	251	26
13,143	13,717	31,093	33,314	32,616	28,846	29,468	22,412	25,471	20,386	36,762	38,570	
79,647	696,954	1,657,754	1,614,771	1,485,004	1,326,932	970,540	904,730	570,008	543,887	381,534	444,739	
16·86	19·68	18·76	20·63	21·96	21·74	30·35	24·77	44·68	37·48	96·35	86·72	

ANNUAL FORM No. V.—DEATHS *registered according to* CLASSES

1	2	3						
		POPULATION ACCORDING TO CENSUS OF 1901.						
No.	Districts.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	West Khándesh	26,614	428,341	3,197	331	255	10,916	469,654
2	East Khándesh	92,565	853,768	9,101	490	407	820	957,151
3	Násik	43,856	761,471	7,643	1,780	467	132	815,349
4	Thána	36,257	724,418	2,484	42,106	5,288	329	810,832
5	City of Bombay	*155,747	*508,608	*14,248	*29,645	*46,231	*5,996	*760,475
6	Kolába	29,339	570,661	1,706	1,202	311	2,288	605,507
	Central Registration District.							
7	Ahmednagar	43,761	756,527	16,254	19,986	202	87	836,817
8	Poona	45,790	920,885	10,703	8,256	2,342	1,126	989,102
9	Sholápur	54,510	655,691	8,453	1,555	360	18	720,587
10	Sátára	40,888	1,085,398	18,483	975	230	56	1,146,030
11	Ratnágiri	82,825	1,077,745	2,328	4,929	29	19	1,167,875
	Southern Registration District.							
12	Belgaum	78,389	856,560	51,836	5,366	106	5	992,262
13	Dhárwár	141,528	954,431	12,336	4,046	153	118	1,112,612
14	Bijápur	84,416	646,768	3,321	866	29	...	735,400
15	Kánara	29,302	407,420	1,542	16,126	16	11	454,417
	Gujarát Registration District.							
16	Surat	54,191	551,027	11,785	957	12,516	6,406	636,882
17	Broach	63,408	195,922	3,254	685	3,127	25,333	291,729
18	Kaira	68,187	614,146	8,469	25,131	209	111	716,253
19	Panch Maháls	21,349	210,521	1,676	489	130	26,838	261,003
20	Ahmedabad	87,183	665,762	37,790	2,827	1,323	459	795,344
	Sind Registration District.							
21	Karáchi	344,516	93,083	126	2,650	1,841	534	442,750
22	Hyderabad	744,632	242,692	119	192	89	751	988,475
23	Thar and Párkar	211,309	151,726	657	5	4	168	363,869
24	Lárkhána	557,651	97,687	...	115	2	628	656,083
25	Sukkur	379,189	143,299	...	24	64	343	522,919
26	Upper Sind Frontier	209,192	22,765	19	2	...	7	231,985
	Total for the Presidency ...	3,726,594	14,197,322	227,530	170,736	75,681	83,499	18,481,362

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

* Population according to the Census of 1901.

in the BOMBAY PRESIDENCY *during the year 1907.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Maho-medans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Maho-medans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
572	15,157	12	1	...	1	15,743	21·49	35·39	·3·76	3·02	...	·09	33·52
2,360	31,304	47	8	2	4	33,725	25·50	36·67	5·16	16·33	4·91	4·88	35·23
1,157	28,316	107	36	4	3	29,623	26 38	37·18	14·00	20·23	8·56	22·73	36·33
1,073	21,434	25	979	98	20	23,629	29·59	29·59	10·06	23·25	18·71	60·79	29·14
8,698	25,700	1,129	1,282	1,309	208	38,326	55·85	50·53	79·24	43·24	27·02	34·70	50·40
711	16,545	19	38	1	29	17,343	24·23	28·99	11·14	31·61	3·22	12·67	28·64
1,279	26,413	53	90	7	256	28,098	29·22	34·91	3·26	4·50	34·65	2,942·53	33·58
1,356	31,145	127	85	34	6	32,753	29·61	33·82	11·87	10·30	14·52	5·33	33·11
1,468	20,027	72	10	2	1	21,580	29·93	30·54	8·52	6·43	5·55	55·55	29·95
2,136	61,835	859	6	4	205	65,045	52·24	56·97	46·47	6·16	14 25	3,660·70	56·76
1,766	22,825	35	75	...	...	24,701	21·32	21·18	15·03	15·22	...	...	21·15
2,783	33,143	2,521	168	...	...	38,615	35·50	38·58	48·63	31·31	...	...	38·92
3,444	23,066	278	110	2	...	26,900	24·33	24·17	22·54	27·19	13·07	...	24·18
1,776	15,198	46	15	...	...	17,035	21·04	23·49	13·85	17·32	...	...	23·16
733	15,919	66	555	...	...	17,273	25·02	39·07	42·80	34·42	...	...	38·01
1,690	15,686	181	18	230	1,589	19,394	31·19	28·47	15·36	18·81	18·38	248·05	30·45
1,917	7,874	50	6	63	991	10,901	30·23	40·19	15·37	8·76	20·15	39·12	37·37
3,155	30,366	144	150	...	4	33,819	46·27	40·44	17·00	5·97	...	36·04	47·22
389	4,151	10	2	...	1,012	5,570	18·22	19·72	9·55	4·09	...	37·71	21·34
3,034	30,608	1,154	26	9	12	34,843	31·80	45·97	30 54	9·20	6·80	26·14	46·81
5,935	3,804	19	107	44	8	9,917	17·23	40·87	150·79	40·38	23·90	14·98	22·40
13,367	5,859	1	2	1	2	19,232	17·95	24·14	8·40	10·42	11·24	2·66	19·46
3,964	3,690	23	...	...	2	7,679	18·76	24·32	35·01	...	...	11·90	21·10
12,729	2,861	...	1	...	1	15,592	22·83	29·29	...	8·70	...	....	23·77
9,828	5,268	2	3	3	26	15,130	25·92	36·76	...	125·00	46·88	75·80	28·93
3,355	783	2	...	...	...	4,140	16·04	34·39	105·26	...	...	...	17·85
90,675	498,977	6,988	3,773	1,813	4,380	606,606	24·33	35·14	30·71	22·10	23·96	52·45	32·82

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	West Khándesh ...	434,006	18	...	1,240	6,922	4,044	1,122	1	2	72
2	East Khándesh ...	926,363	127	10	2,995	10,701	9,525	3,239	2	12	219
3	Násik	771,184	174	18	475	11,585	1,676	2,947	3	4	155
4	Thána	784,673	423	23	632	14,938	875	704	23	17	319
5	Kolába	581,621	239	56	337	10,340	1,137	341	8	7	188
	Central Registration District.										
6	Ahmednagar ...	781,862	717	52	46	9,611	5,324	3,288	5	4	198
7	Poona	821,538	549	16	1,016	13,311	2,865	2,926	3	7	217
8	Sholápur	589,042	777	23	189	9,466	3,001	678	5	6	109
9	Sátára	1,095,049	496	39	34,403	14,137	4,921	948	6	10	272
10	Ratnágiri	1,132,815	7	72	285	13,406	1,726	1,774	9	6	205
	Southern Registration District.										
11	Belgaum	936,131	350	156	13,589	5,522	4,158	2,342	10	16	337
12	Dhárwár	976,302	405	473	448	7,535	1,409	1,692	15	9	184
13	Bijápur	706,674	977	48	23	5,595	1,827	1,576	26	48	174
14	Kánara	426,825	268	641	403	7,875	1,321	420	13	5	168
	Gujarát Registration District.										
15	Surat	504,854	11	...	2,603	8,561	173	3,209	11	8	149
16	Broach	238,686	...	...	1,379	5,352	99	1,313	2	3	44
17	Kaira	646,099	...	...	11,722	7,702	666	5,849	9	8	150
18	Panch Mahals ...	226,115	...	...	497	3,703	36	131	3	3	61
19	Ahmedabad ...	571,357	...	6	4,695	15,124	143	1,159	7	11	103
	Sind Registration District.										
20	Karáchi	329,850	...	8	117	3,749	30	56	...	1	42
21	Hyderabad... ...	919,652	...	2	2	15,946	96	97	6	8	120
22	Thar and Párkar ...	358,970	...	...	1	7,304	9	16	1	1	43
23	Lárkhána	641,540	...	13	2	14,343	16	12	2	7	136
24	Sukkur	442,538	14	1	19	11,753	32	47	4	6	96
25	Upper Sind Frontier.	221,258	...	1	...	3,715	8	6	2	8	30
	Total of Districts ...	16,065,004	5,552	1,658	77,118	238,196	45,117	35,892	176	217	3,741
	B.—TOWNS.										
	West Khándesh District.										
1	Dhulia	24,726	...	...	1	89	182	139	2	...	4
2	Nandurbár... ...	10,922	...	...	5	196	62	36	...	...	3
	East Khándesh District.										
3	Chopda	18,612	...	...	240	39	57	66	...	...	6
4	Nasirabad	12,176	4	...	...	106	111	77	...	...	2

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1907.*

ss.		11	12	13									14
				Ratio of Deaths per 1,000 of Population.									
a ke-bite, r killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
25	100	1,436	14,822	·04	...	2·86	15·94	9·32	2·58	·23	3·31	34·28	42·98	1
20	253	6,050	32,900	·14	·01	3·23	11·55	10·28	3·50	·27	6·53	35·52		2
51	213	10,658	27,746	·22	·02	·62	15·02	2·17	3·82	·27	13·82	35·97	41·63	3
117	476	4,692	22,763	·54	·03	·81	19·03	1·11	·90	·61	5·98	29·01	30·73	4
41	194	4,168	16,812	·41	·09	·58	17·78	1·95	·59	·33	7·17	28·90	33·17	5
16	223	7,129	26,390	·92	·07	·06	12·29	6·80	4·20	·29	9·12	33·75	40·39	6
36	263	5,727	26,673	·66	·02	1·24	16·20	3·49	3·56	·32	6·98	32·47	37·10	7
4	124	1,864	16,122	1·33	·04	·33	16·07	5·08	1·16	·21	3·16	27·38	41·85	8
46	334	6,928	62,206	·45	·04	31·42	12·91	4·49	·87	·30	6·33	56·81	43·56	9
246	466	6,092	23,828	·01	·06	·25	11·83	1·52	1·57	·41	5·38	21·03	21·78	10
17	380	10,622	37,019	·37	·17	14·52	5·90	4·44	2·50	·40	11·24	39·54	47·29	11
25	233	11,141	23,336	·41	·48	·46	7·72	1·44	1·73	·24	11·41	23·89	47·63	12
31	279	6,206	16,531	1·38	·07	·03	7·92	2·59	2·23	·39	8·78	23·39	42·55	13
21	207	5,528	16,663	·63	1·50	·94	18·45	3·09	·98	·48	12·95	39·04	31·61	14
32	200	1,298	16,055	·02	...	5·15	16·96	·34	6·36	·40	2·57	31·80	36·51	15
19	68	1,052	9,263	...	...	5·78	22·42	·41	5·50	·29	4·41	38·81	41·73	16
67	234	4,752	30,925	...	...	18·14	11·92	1·03	9·05	·36	7·36	47·86	49·71	17
31	98	577	5,042	...	...	2·20	16·38	·16	·58	·43	2·55	22·30	25·14	18
63	184	893	22,204	...	·01	8·22	26·47	·25	2·03	·32	1·56	38·86	39·10	19
42	85	338	4,383	...	·02	·35	11·37	·09	·17	·26	1·02	13·29	17·53	20
124	258	276	16,677	...	·00	·00	17·34	·10	·11	·28	·30	18·13	17·49	21
67	112	55	7,497	...	...	·00	20·35	·03	·04	·31	·15	20·88	20·39	22
79	224	318	14,928	...	·02	·00	22·36	·02	·02	·35	·50	23·27	23·47	23
35	139	68	12,073	·03	·00	·04	26·56	·07	·11	·31	·15	27·28	21·57	24
13	53	25	3,808	...	·00	...	16·79	·04	·03	·24	·11	17·21	16·56	25
1,266	5,400	97,793	506,726	·35	·10	4·80	14·82	2·81	2·23	·34	6·09	31·54	35·68	
...	6	108	525	...	...	·04	3·60	7·36	5·62	·24	4·37	21·23	53·62	1
3	6	31	336	...	...	·45	17·94	5·68	3·30	·55	2·84	30·76	43·77	2
...	6	53	461	...	...	12·89	2·10	3·06	3·55	·32	2·85	24·77	46·89	3
...	2	64	364	·33	...	...	8·71	9·11	6·32	·16	5·26	29·89	41·64	4

FORM No.

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Násik District.										
5	Násik	21,490	35	...	9	412	158	163	...	...	11
6	Yeola	16,559	5	...	120	121	47	72	...	...	4
7	Devláli Cantonment.	2,894	...	...	...	9	7	5	...	...	1
8	Málegaon do. ...	3,222	...	...	1	18	2	11	...	...	...
	Thána District.										
9	Thána	15,410	2	...	66	99	37	26	1	1	9
10	Kalyán	10,749	...	...	17	143	33	52	...	...	6
11	City of Bombay ...	959,537*	431	85	†6,379	3,590	3,441	11,848	44	28	716
	Kolába District.										
12	Panvel	10,152	...	...	2	60	31	27	...	...	4
13	Alibág	5,996	9	...	1	30	7	10	...	...	4
14	Mahád	7,238	...	...	41	43	21	...	...	...	...
	Ahmednagar District.										
15	Ahmednagar ...	35,784	45	2	5	184	105	725	1	...	20
16	Sangamner... ...	13,801	1	2	1	74	47	14	1	...	6
17	Ahmednagar Cantonment.	5,370	...	...	...	46	11	26	...	...	...
	Poona District.										
18	Poona	120,543	91	2	1,088	766	1,112	766	1	...	17
19	Junnar	9,675	...	1	15	86	22	15	...	...	...
20	Poona Cantonment	26,549	6	...	14	119	32	81	1	...	8
21	Kirkee do. ...	10,797	4	...	1	78	22	43	....	1	2
	Sholápur District.										
22	Sholápur	74,898	39	...	...	1,031	521	211	3	1	31
23	Bársi	24,242	33	...	...	415	130	61	2	2	6
24	Pandharpur ...	32,405	1,295	2	1	302	353	74	...	1	3
	Sátára District.										
25	Sátára	25,493	1	4	608	158	103	51	1	...	9
26	Wái	13,989	...	...	816	33	36	17	...	...	1
27	Karád	11,499	...	...	570	113	38	4	1	1	3
	Ratnágiri District.										
28	Vengurla	19,018	...	...	101	211	21	62	...	...	2
29	Ratnágiri	16,042	...	44	...	154	31	23	1	...	8

* Population according to the Census of 1906.

† These figures do not include deaths among Europeans, Eurasians and Fighting men.

VI—*continued.*

		11	12	13										14
...BIES.				Ratio of Deaths per 1,000 of Population.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
1	12	429	1,218	1·63	...	·42	19·17	7·35	7·58	·56	19·96	56·67	80·32	5
...	4	159	528	·30	...	7·25	7·30	2·84	4·35	·24	9·60	31·88	84·92	6
...	1	36	58	...	...	...	3·12	2·42	1·72	·35	12·43	20·04	50·52	7
...	...	41	73	...	...	·31	5·58	·62	3·41	...	12·72	22·65	50·52	8
1	12	263	505	·13	...	4·28	6·42	2·40	1·69	·78	17·07	32·77	41·27	9
...	6	130	361	...	...	1·59	13·30	3·07	2·98	·56	12·09	33·59	47·26	10
8	796	11,756	38,326	·45	·09	6·65	3·74	3·60	12·35	·83	12·25	39·94	63·21	11
...	4	111	235	...	...	·20	5·91	3·05	2·66	·39	10·93	23·14	38·24	12
...	4	72	133	1·50	...	·16	5·00	1·17	1·67	·67	12·01	22·18	26·25	13
1	1	57	163	...	...	5·30	5·56	2·71	...	·13	7·36	21·06	24·71	14
...	21	271	1,358	1·26	·06	·14	5·14	2·93	20·26	·59	7·57	37·95	70·57	15
1	8	102	249	·07	·14	·07	5·36	3·41	1·02	·58	7·39	18·04	41·88	16
...	...	18	101	...	...	...	8·57	2·05	4·84	...	3·35	18·81	13·59	17
1	19	1,204	5,048	·75	·02	9·03	6·35	9·22	6·35	·16	9·19	41·88	69·30	18
...	...	52	191	...	·10	1·55	8·89	2·28	1·55	...	5·37	19·74	33·40	19
...	9	359	620	·22	...	·53	4·48	1·21	3·05	·34	13·52	23·35	41·86	20
1	4	69	221	·37	...	·10	7·22	2·04	3·98	·37	6·39	20·47	35·05	21
...	35	439	2,276	·52	...	...	13·76	6·95	2·82	·47	5·86	30·38	58·13	22
...	10	199	848	1·36	...	...	17·12	5·36	2·52	·41	8·21	34·98	51·58	23
...	4	303	2,334	39·96	·06	·03	9·32	10·89	2·28	·12	9·36	72·02	48·60	24
...	10	144	1,079	·04	·16	23·85	6·20	4·04	2·00	·39	5·65	42·33	49·70	25
...	1	78	981	...	...	58·33	2·36	2·57	1·22	·07	5·58	70·13	42·52	26
...	5	49	779	...	...	49·58	9·84	3·30	·34	·43	4·26	67·75	41·06	27
2	4	116	515	...	...	5·31	11·09	1·10	3·26	·21	6·10	27·07	18·66	28
3	12	94	358	...	2·74	...	9·60	1·93	1·43	·75	5·86	22·31	34·92	29

FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injury		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Belgaum District.										
30	Belgaum	26,247	19	30	89	119	76	35	...	...	3
31	Gokák	9,860	25	8	1	52	85	8	...	...	4
32	Athni	11,107	...	5	271	19	30	28	...	...	5
33	Belgaum Cantonment.	8,927	3	...	11	19	20	12	...	...	3
	Dhárwár District.										
34	Dhárwár	30,593	10	...	2	158	89	102	1	2	16
35	Hubli	60,214	7	...	...	154	114	204	3	3	22
36	Gadag-Bettigeri ...	30,652	18	...	127	83	71	96	...	...	8
37	Ránebennur ...	14,851	...	4	2	57	17	21	...	...	10
	Bijápur District.										
38	Bijápur	23,776	14	1	...	49	29	73	...	3	12
39	Kaládgi	4,950	3	...	...	21	6	9	...	1	...
	Kánara District.										
40	Kárwár	16,774	...	2	...	120	27	11	1	...	1
41	Kumta	10,818	1	3	...	80	41	14	...	...	...
	Surat District.										
42	Surat	119,171	2	...	53	853	182	1,370	...	1	34
43	Bulsár	12,857	...	...	52	103	7	134	...	...	4
	Broach District.										
44	Broach	42,862	1	...	4	178	45	448	...	...	21
45	Jambusar	10,181	...	...	289	55	3	146	...	...	4
	Kaira District.										
46	Kaira	10,313	...	...	76	82	4	150	...	1	3
47	Nadiád	31,435	...	...	386	331	40	341	...	...	12
48	Borsad	13,001	...	...	241	45	39	185	...	...	5
49	Kapadvanj	15,405	...	...	120	171	14	147	1	...	4
	Panch Maháls District.										
50	Godhra	20,898	...	...	1	87	9	29	...	...	4
51	Dohad	13,990	...	...	...	188	3	16	...	1	4
	Ahmedabad District.										
52	Ahmedabad ...	181,774	...	...	1,531	4,744	219	2,422	2	...	53
53	Gogha	4,798	...	...	47	27	3	40	...	...	...
54	Viramgám	18,952	...	...	4	314	3	213	...	...	7
55	Dholka	14,971	...	...	436	362	62	134	...	...	8
56	Ahmedabad Cantonment.	3,492	...	...	4	41	1	1	...	...	...

VI—*continued.*

		11	12	13										14
RIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dy-sentery and Diar-rhœa.	Respi-ratory diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	3	331	702	·72	1·14	3·39	4·54	2·90	1·33	·71	12·62	26·76	48·81	30
2	6	90	275	2·54	·81	·10	5·27	8·62	·81	·60	9·13	27·89	65·38	31
...	5	103	461	...	·45	24·40	1·71	2·70	2·52	·45	9·27	41·50	65·38	32
...	3	90	158	·34	...	1·23	2·13	2·24	1·34	·33	10·08	17·70	34·97	33
1	20	429	810	·33	...	·07	5·16	2·91	3·33	·65	14·02	26·48	46·54	34
...	28	1,062	1,569	·12	...	...	2·56	1·89	3·39	·47	17·64	26·06	41·09	35
...	8	460	863	·59	...	4·14	2·71	2·32	3·13	·26	15·01	28·15	40·07	36
...	10	211	322	...	·27	·13	3·84	1·14	1·41	·67	14·21	21·68	61·98	37
...	15	258	439	·59	·04	...	2·06	1·22	3·07	·63	10·85	18·46	34·91	38
...	1	25	65	·61	...	...	4·24	1·21	1·82	·20	5·05	13·13	47·23	39
1	3	133	296	...	·12	...	7·15	1·61	·65	·18	7·93	17·64	18·09	40
1	1	174	314	·09	·28	...	7·39	3·79	1·29	·09	16·09	29·02	25·94	41
1	36	514	3,010	·02	...	·44	7·16	1·53	11·50	·30	4·31	25·26	56·80	42
...	4	29	329	...	...	4·05	8·01	·54	10·42	·31	2·26	25·59	32·77	43
...	21	468	1,165	·02	...	·10	4·15	1·05	10·45	·49	10·92	27·18	45·88	44
2	6	24	473	...	...	23·48	5·40	·29	14·34	·59	2·36	46·46	49·62	45
...	4	51	367	...	...	7·37	7·96	·39	14·54	·39	4·94	35·59	50·63	46
1	13	269	1,380	...	...	12·29	10·53	1·27	10·85	·41	8·55	43·90	62·95	47
1	6	96	612	...	...	18·54	3·46	3·00	14·23	·46	7·38	47·07	54·72	48
1	6	77	535	...	...	7·79	11·10	·91	9·54	·39	5·00	34·73	56·52	49
...	4	88	218	...	...	·05	4·16	·43	1·39	·19	4·21	10·43	49·19	50
...	5	98	310	...	...	...	13·44	·21	1·14	·36	7·01	22·16	48·26	51
2	57	1,428	10,401	...	...	8·42	26·10	1·21	13·32	·31	7·86	57·22	58·50	52
...	...	31	148	...	...	9·80	5·63	·62	8·34	...	6·46	30·85	51·48	53
...	7	266	807	...	...	·21	16·57	·16	11·24	·37	14·03	42·58	63·13	54
2	10	229	1,233	...	...	29·12	24·18	4·14	8·95	·67	15·30	82·36	53·42	55
...	...	3	50	...	...	1·14	11·74	·29	0·29	...	·86	14·32	14·31	56

FORM No.

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*concluded.*										
	Karáchi District.										
57	Karáchi	116,900	...	7	2,529	796	136	401	1	...	47
	Hyderabad District.										
58	Hyderabad ...	68,823	...	1	8	1,163	382	608	1	3	13
	Thar and Párkar District.										
59	Umarkot	4,899	...	...	...	165	1	1	...	...	...
	Lárkhána District.										
60	Lárkhána	14,543	...	1	65	394	11	19	1	...	8
	Sukkur District.										
61	Shikárpur	49,491	...	...	2	1,322	21	36	...	...	5
62	Sukkur	30,890	...	...	88	786	19	37	...	...	28
	Upper Sind Frontier District.										
63	Jacobabad	10,727	...	...	...	270	2	...	...	...	3
	Total of Towns ...	2,615,420	2,104	204	16,491	22,133	8,591	22,176	70	50	1,237
	Total for the Presidency ...	18,481,362	7,656	1,862	93,609	260,329	53,708	58,068	246	267	4,978

VI—*concluded.*

	11	12	13										14
RIES.			Ratio of Deaths per 1,000 of Population.								From all Causes.		
Snake-bite or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
...	48	1,617	5,534	...	·06	22·40	7·05	1·20	3·55	·43	14·32	49·02	58·36	57
3	20	373	2,555	...	·01	·12	16·90	5·55	8·83	·29	5·42	37·12	44·62	58
...	...	15	182	...	...	...	33·68	·20	·20	...	3·06	37·15	49·68	59
...	9	165	664	...	·07	4·47	27·09	·76	1·31	·62	11·35	45·66	44·15	60
1	6	555	1,942	...	...	·04	26·71	·42	·73	·12	11·21	39·24	48·57	61
...	28	157	1,115	...	...	2·85	25·45	·61	1·20	·91	5·08	36·10	34·69	62
1	4	56	332	...	...	...	25·17	·19	...	·37	5·22	30·95	38·20	63
42	1,399	26,782	99,880	·80	·08	6·30	8·46	3·29	8·48	·54	10·24	38·19	55·33	
1,308	6,799	124,575	606,606	·41	·10	5·06	14·03	2·91	3·14	·37	6·74	32·82	38·25	

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1907.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Cholera were reported.	Number in each District.	Number from which deaths from Cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	West Khándesh ...	10	3	1,186	3	...	...	...	...	...	...	...	8	10	...	...	...	7	11	18	·03	·05	·04	1·06	1
2	East Khándesh ...	15	9	1,459	27	...	...	...	...	...	...	33	44	30	17	2	...	71	60	131	·15	·13	·14		2
3	Násik	16	11	1,649	29	...	4	8	...	...	35	43	96	15	18	...	...	102	112	214	·24	·28	·26	1·19	3
4	Thána	11	9	1,633	43	107	45	75	79	60	11	...	12	35	1	...	...	226	199	425	·53	·51	·52	1·14	4
5	City of Bombay ...	1	1	1	1	9	5	11	4	3	7	33	208	105	27	13	6	278	153	431	·46	·43	·45	·41	5
6	Kolába	11	7	1,484	32	24	22	18	...	1	9	14	118	37	5	...	...	127	121	248	·41	·40	·41	1·92	6
	Central Registration District.																								
7	Ahmednagar	14	10	1,355	7	...	4	40	101	83	123	253	114	55	...	...	...	352	411	763	·84	·98	·91	·84	7
8	Poona	12	11	1,191	69	...	4	141	43	26	51	113	171	55	44	2	...	345	305	650	·69	·62	·65	1 94	8
9	Sholápur	10	10	719	100	...	...	...	...	...	...	1,731	395	14	4	...	...	1,217	927	2,144	3 38	2 59	2·98	1·59	9
10	Sátára	15	14	1,34	74	...	...	7	2	...	...	64	254	139	31	...	...	269	228	497	4 7	·39	·43	1·09	10
11	Ratnágiri	10	2	1,308	3	...	...	...	...	...	...	...	...	2	2	3	...	3	4	7	·0 1	·01	·01	·07	11
	Southern Registration District.																								
12	Belgaum	11	10	1,077	44	2	1	24	16	2	32	30	134	28	57	61	10	223	174	397	·45	·35	·40	·96	12
13	Dhárwár	17	10	1,302	50	39	19	36	116	52	53	88	37	...	...	...	...	230	210	440	·41	·38	·40	·62	13
14	Bijápur	10	10	1,118	132	9	6	72	98	168	284	162	130	55	9	1	...	530	464	994	1·44	1·26	1·35	1·34	14
15	Kánara	18	8	1,289	42	...	...	...	11	3	66	12	28	20	17	39	74	189	130	269	·69	·58	·59	·09	15
	Gujarát Registration District.																								
16	Surat	10	1	778	3	...	...	11	...	1	...	...	...	...	1	...	...	5	8	13	·02	·02	·02	·14	16
17	Broach	8	1	410	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	·01	·00	·05	17
18	Kaira	11	...	609	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18
19	Panch Mahals ...	7	...	693	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	19
20	Ahmedabad	12	...	874	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20
	Sind Registration District.																								
21	Karáchi	11	...	633	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·06	21
22	Hyderabad	14	...	1,412	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·27	22
23	Thar and Párkar ...	12	...	669	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·02	23
24	Lárkhána	11	...	713	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·35	24
25	Sukkur	10	1	611	1	...	...	...	...	...	...	...	...	7	7	...	...	7	7	14	·02	·03	·03	·33	25
26	Upper Sind Frontier	5	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·12	26
	Total for the Presidency.	287	125	25,909	726	190	110	448	470	399	661	2,580	1,750	607	235	121	90	4,131	3,525	7,656	·43	·40	·41	·75	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1907.*

1	2	3		4		5												6			7		8			9	10
No.	Districts.	Circles of Registration.		Villages.														Total.			Number of these Deaths among Children.		Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 for previous five years.	No.
		Number in each District.	Number from which deaths from Small-pox were reported.	Number in each District.	Number from which deaths from Small-pox were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Under 1 year.	1 to 10 years.	Male.	Female.	Total.		
	Western Registration District.																										
1	West Khándesh ...	10	...	1,186	...	...	...	...	1	1	5	1	...	...	...	2	...	...	6	4	10	2	8	·01	·01	·01	1·33	1
2	East Khándesh ...	15	4	1,459	6	...	...	...	...	...	...	...	...	...	...	1	...	...	6	4	10	2	8	·01	·01	·01		2
3	Násik	16	6	1,649	12	1	3	1	2	5	3	...	1	...	2	...	...	10	8	18	7	6	·02	·02	·02	·42	3
4	Thána	11	6	1,633	17	6	2	3	2	3	1	2	...	3	...	1	...	13	10	23	5	5	·03	·03	·03	·29	4
5	City of Bombay ...	1	1	1	1	...	13	12	14	6	7	5	2	1	2	4	19	57	28	85	19	19	·99	·08	·09	1·24	5
6	Kolába	11	5	1,484	21	6	7	8	8	13	8	3	3	...	...	...	...	22	34	56	18	30	·07	·11	·09	·32	6
	Central Registration District.																										
7	Ahmednagar	14	7	1,355	20	11	6	8	5	4	5	1	...	4	1	...	11	28	28	56	17	24	·07	·06	·06	·17	7
8	Poona	12	8	1,191	13	3	1	2	1	...	2	...	1	7	1	...	1	10	9	19	7	8	·02	·02	·02	·25	8
9	Sholápur	10	5	719	9	1	2	9	6	5	1	...	...	...	...	...	1	10	15	25	11	9	·03	·04	·03	·24	9
10	Sátára	15	6	1,345	13	6	7	12	7	1	1	7	...	...	2	...	...	20	23	43	5	18	·04	·04	·04	·08	10
11	Ratnágiri	10	9	1,308	31	6	17	34	24	16	13	5	...	2	...	2	...	43	73	116	32	47	·08	·12	·10	·12	11
	Southern Registration District.																										
12	Belgaum	11	10	1,077	73	15	18	42	37	18	17	19	6	2	2	5	18	94	105	199	47	99	·19	·21	·20	·07	12
13	Dhárwár	17	12	1,302	140	68	76	85	90	69	50	24	10	5	2	3	5	232	245	477	112	192	·41	·44	·43	·13	13
14	Bijápur	10	6	1,118	16	2	5	2	9	8	7	3	6	1	2	...	4	27	22	49	18	16	·07	·06	·07	·24	14
15	Kánara	18	12	1,289	177	53	77	108	163	92	60	42	18	9	7	10	7	341	305	646	55	123	1·44	1·39	1·42	·43	15
	Gujarát Registration District.																										
16	Surat	10	...	778	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·13	16
17	Broach	8	...	410	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·16	17
18	Kaira	11	...	609	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·10	18
19	Panch Mahals ...	7	...	693	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·17	19
20	Ahmedabad	12	4	874	4	...	1	4	...	...	...	...	1	...	...	...	...	3	3	6	...	2	·01	·01	·01	·29	20
	Sind Registration District.																										
21	Karáchi	11	2	633	3	3	...	...	4	4	...	...	...	...	...	1	3	11	4	15	...	4	·04	·02	·03	·29	21
22	Hyderabad	14	2	1,412	3	...	...	...	...	...	1	1	1	...	...	...	...	2	1	3	...	2	·00	·00	·00	·21	22
23	Thar and Párkar ...	12	...	669	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·11	23
24	Lárkhána	11	6	713	8	3	5	...	...	3	...	...	...	1	...	...	2	8	6	14	1	7	·02	·02	·02	·07	24
25	Sukkur	10	1	611	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...	·00	·00	·26	25
26	Upper Sind Frontier	5	1	391	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	...	...	·01	·00	·09	26
	Total for the Presidency.	287	113	25,909	569	184	240	328	373	243	177	113	49	37	21	28	69	987	925	1,862	356	619	·10	·10	·10	·33	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVERS *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1907.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 for previous five years.	No.
		Number in each District.	Number from which deaths from fevers were reported.	Number in each District.	Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	West Khándesh ...	10	10	1,186	1,008	824	571	656	503	514	448	501	664	715	681	604	526	3,677	3,530	7,207	15·51	15·13	15·35	13·43	1
2	East Khándesh ...	15	15	1,459	1,265	776	748	851	740	866	697	896	1,173	1,317	1,191	833	753	5,394	5,452	10,846	11·13	11·53	11·33		2
3	Násik	16	16	1,649	1,443	1,343	908	1,042	925	769	803	988	1,256	1,041	1,034	1,030	1,001	6,238	5,907	12,145	15·12	14·66	14·89	13·53	3
4	Thána	11	11	1,633	1,526	1,901	1,616	1,735	1,140	994	917	731	1,208	1,237	1,209	1,210	1,302	7,894	7,286	15,180	18·70	18·73	18·72	17·54	4
5	City of Bombay ...	1	1	1	1	337	359	414	306	306	247	206	250	293	302	282	282	2,311	1,279	3,590	3·85	3·58	3·74	4·27	5
6	Kolába	11	11	1,484	1,404	1,357	1,094	1,047	808	708	675	668	924	831	793	779	798	5,379	5,094	10,473	13·67	16·92	17·30	17·34	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,355	1,237	661	574	803	701	823	922	1,194	1,104	936	810	749	860	4,968	4,947	9,915	11·91	11·78	11·85	12·03	7
8	Poona	12	12	1,191	1,153	1,308	1,026	1,295	1,195	1,311	1,294	1,502	1,415	1,123	1,109	946	836	7,536	6,824	14,360	15·12	13·87	14·52	13·32	8
9	Sholápur	10	10	719	679	569	505	669	626	953	962	1,578	727	1,458	1,252	1,076	829	5,896	5,318	11,214	16·26	14·86	15·57	13·22	9
10	Sátára	15	15	1,345	1,254	1,041	934	1,075	1,193	1,142	1,121	1,250	1,650	1,572	1,473	1,019	971	7,308	7,133	14,441	12·83	12·36	12·60	10·59	10
11	Ratnágiri	10	10	1,308	1,257	1,432	1,326	1,394	1,166	1,062	629	719	1,016	1,243	1,244	1,184	1,356	6,698	7,073	13,771	12·23	11·40	11·79	11·22	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	927	432	437	484	424	447	418	467	552	490	531	506	503	2,885	2,846	5,731	5·76	5·79	5·78	6·52	12
13	Dhárwár	17	17	1,302	1,160	790	832	820	563	565	512	557	569	565	615	749	850	3,955	4,032	7,987	7·06	7·30	7·18	9·08	13
14	Bijápur	10	10	1,118	954	366	355	473	385	485	533	559	525	518	581	454	471	2,793	2,872	5,665	7·59	7·82	7·70	9·73	14
15	Kánara	13	13	1,289	1,103	796	776	836	581	564	602	639	669	652	572	612	776	4,184	3,891	8,075	17·73	17·81	17·77	14·22	15
	Gujarát Registration District.																								
16	Surat	10	10	778	735	965	943	966	795	693	639	733	805	764	681	768	825	4,767	4,750	9,517	15·00	14·88	14·94	16·83	16
17	Broach	8	8	410	389	510	396	446	415	436	372	445	513	496	559	526	471	2,743	2,842	5,585	15·47	19·84	19·14	22·69	17
18	Kaira	11	11	609	574	1,105	860	878	689	529	457	550	572	574	675	695	747	4,132	4,198	8,330	11·04	12·38	11·63	14·57	18
19	Panch Mahals ...	7	7	693	568	482	384	426	347	294	223	203	258	276	361	327	397	2,078	1,900	3,978	15·74	14·74	15·24	17·17	19
20	Ahmedabad ...	12	12	874	838	2,658	2,152	2,504	1,778	1,338	928	1,048	1,220	1,497	1,574	1,803	2,112	10,413	10,199	20,612	25·54	26·31	25·92	31·20	20
	Sind Registration District.																								
21	Karáchi	11	11	633	633	797	516	489	311	254	273	276	211	335	327	351	405	2,474	2,071	4,545	10·04	10·50	10·27	13·16	21
22	Hyderabad	14	14	1,412	1,412	3,490	2,239	1,791	1,256	1,140	866	773	740	807	1,100	1,342	1,595	9,621	7,488	17,109	17·69	16·84	17·30	15·74	22
23	Thar and Párkar ...	12	12	669	669	1,531	1,040	1,080	524	421	371	295	289	320	366	569	723	4,157	3,312	7,469	20·51	20·55	20·53	19·80	23
24	Lárkhána	11	11	713	713	2,624	2,049	1,580	1,089	879	714	650	597	756	1,096	1,408	1,295	8,080	6,657	14,737	22·82	22·04	22·46	22·17	24
25	Sukkur	10	10	611	611	2,523	1,585	1,453	777	828	655	612	524	702	1,256	1,454	1,492	7,383	6,478	13,861	26·22	26·34	26·51	21·28	25
26	Upper Sind Frontier	5	5	391	391	641	403	318	220	252	214	220	160	206	435	475	433	2,161	1,824	3,985	16·64	17·86	17·18	16·31	26
	Total for the Presidency ...	287	287	25,909	23,904	31,281	24,633	25,495	19,437	18,573	16,492	18,240	19,591	20,714	21,827	21,634	22,412	135,125	125,264	260,389	14·18	13·89	14·03	14·09	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1907.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 for previous five years.	No.
		Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total		
	Western Registration District.																								
1	West Khandesh ...	10	10	1,186	799	341	302	304	311	337	276	357	441	490	413	362	354	2,324	1,964	4,288	9·80	8·44	9·13		
2	East Khándesh ...	15	15	1,459	1,141	599	563	646	620	743	669	925	1,178	1,290	1,028	678	754	5,351	4,342	9,693	11·04	9·18	10·13	9·45	2
3	Násik	16	16	1,649	513	59	74	61	76	88	123	224	626	234	142	101	92	1,028	862	1,890	2·49	2·14	2·32	5,41	3
4	Thána	11	11	1,633	326	94	78	71	50	48	39	70	156	74	72	85	108	543	402	945	1·2	1·03	1·16	1.46	4
5	City of Bombay ...	1	1	1	1	304	311	304	272	205	216	255	452	363	250	238	271	1,887	1,554	3,441	3·14	4·33	3·60	4,51	5
6	Kolába...	11	11	1,484	510	113	102	112	95	79	80	104	182	139	60	68	71	660	536	1196	2·17	1·8	1·93	2,40	6
	Central Registration District.																								
7	Ahmednagar	14	14	1,355	1,016	270	216	280	259	402	569	780	835	705	498	376	297	3,905	2,482	5,467	7·21	5·90	6·56	5·86	7
8	Poona	12	12	1,191	639	187	182	259	218	329	334	435	603	509	363	349	285	2,118	1,935	4,053	4·25	3·94	4·10	5·59	8
9	Sholápur	10	10	719	589	239	196	270	240	263	213	586	673	474	356	232	263	2,054	1,951	4,005	5·67	5·45	5·56	5·76	9
10	Sátára	15	15	1,345	814	138	105	138	148	246	332	595	1,228	831	624	389	326	2,551	2,547	5,098	4 49	4·41	4·45	4·48	10
11	Ratnágiri	10	10	1,308	681	124	103	229	109	74	162	155	281	110	138	164	129	953	825	1,778	1·74	1·33	1·52	2·45	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	699	212	169	202	259	349	405	553	594	478	513	344	282	2,182	2,182	4,369	4·36	4·44	4·40	3·95	12
13	Dhárwár	17	17	1,302	444	87	74	116	130	116	141	205	245	191	155	136	104	867	833	1,700	1·55	1·51	1·53	1·65	13
14	Bijápur	10	10	1,118	535	87	75	76	80	136	164	214	281	291	179	136	143	893	969	1,862	2 43	2·64	2·53	3·62	14
15	Kánara	13	13	1,289	361	102	100	97	79	74	86	123	169	181	152	111	116	758	631	1,389	3·21	2·89	3·06	1·62	15
	Gujarát Registration District.																								
16	Surat	10	10	778	97	29	19	24	40	27	34	32	57	40	24	17	19	205	157	362	·65	·49	·57	·68	16
17	Broach...	8	8	410	51	8	5	7	12	12	14	18	17	17	14	14	9	82	65	147	·55	·45	·51	·66	17
18	Kaira	11	11	609	212	38	40	26	41	45	74	87	99	96	117	66	34	430	333	763	1·15	·98	1·07	1·19	18
19	Panch Mahále... ...	7	6	693	14	...	2	5	1	1	3	2	7	7	4	5	11	27	21	48	·20	·16	·18	·18	19
20	Ahmedabad	12	12	874	59	30	33	41	35	28	16	29	38	49	61	45	26	239	192	431	·58	·50	·54	·69	20
	Sind Registration District.																								
21	Karáchi	11	9	633	14	10	11	8	10	8	23	27	25	12	8	8	16	97	69	166	·39	·35	·38	·49	21
22	Hyderabad	14	11	1,412	20	65	53	43	23	18	20	36	42	33	36	54	55	270	208	478	·50	·47	·48	·36	22
23	Thar and Párkar ...	12	8	669	9	2	2	...	1	2	1	1	...	1	...	...	...	8	2	10	·04	·01	·03	·05	23
24	Lárkhána	11	8	713	11	6	4	2	1	...	...	1	...	4	2	4	3	15	12	27	·04	·04	·04	·06	24
25	Sukkur...	10	6	611	8	13	7	10	5	3	4	4	3	6	6	4	7	49	23	72	·17	·10	·14	·22	25
26	Upper Sind Frontier.	5	3	391	4	1	1	...	...	6	...	...	1	1	...	...	...	3	7	10	·02	·07	·04	·08	26
	Total for the Presidency ...	287	263	25,909	9,567	3,158	2,827	3,331	3,115	3,639	3,998	5,818	8,227	6,610	5,215	3,986	3,784	28,604	25,104	53,708	3 00	2·82	2·91	3·17	

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1907.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	West Khándesh ...	10	15	1,186	422	146	144	137	90	83	73	58	94	121	97	114	140	721	576	1,297	3·04	2·47	2·76	3·29	1
2	East Khándesh ...	15	10	1,459	840	351	302	275	210	212	175	208	344	338	336	308	323	1,801	1,581	3,382	3·72	3·34	3·53		2
3	Násik ...	16	16	1,649	862	269	234	265	195	213	195	278	324	317	309	278	320	1,554	1,644	3,198	3·77	4·08	3·92	13·27	3
4	Thána ...	11	11	1,633	274	79	67	70	55	62	40	52	72	83	50	60	72	401	361	762	·95	·93	·94	1·12	4
5	City of Bombay...	1	1	1	1	1,073	1,075	1,161	1,029	851	822	842	995	1,025	1,002	931	1,037	6,162	5,686	11,848	10·26	15·48	12·35	2·12	5
6	Kolába ...	11	10	1,484	193	41	34	37	28	34	26	18	28	25	42	29	36	201	177	378	·66	·58	·62	·97	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,355	888	258	221	285	249	291	300	429	493	407	396	409	320	1,930	2,123	4,053	4·62	5·06	4·84	4·22	7
8	Poona ...	12	12	1,191	616	250	214	250	247	270	262	271	469	421	500	357	320	1,980	1,851	3,831	3·98	3·77	3·88	3·53	8
9	Sholápur ...	10	10	719	269	89	86	76	57	58	59	80	247	101	52	59	60	485	539	1,024	1·34	1·51	1·42	2·08	9
10	Sátára ...	15	14	1,345	332	94	83	85	77	64	63	83	107	100	116	73	85	468	552	1,020	·82	·96	·89	·90	10
11	Ratnágiri ...	10	10	1,308	658	94	190	159	93	139	130	234	235	113	106	94	132	968	891	1,859	1·77	1·43	1·59	2·16	11
	Southern Registration District.																								
12	Belgaum ...	11	11	1,077	651	230	212	222	126	184	169	159	177	207	263	243	233	1,260	1,165	2,425	2·51	2·37	2·44	2·62	12
13	Dhárwár ...	17	17	1,302	500	185	205	197	155	147	145	136	178	192	176	200	199	1,000	1,115	2,115	1·78	2·02	1·90	2·38	13
14	Bijápur ...	10	10	1,118	565	154	116	153	107	116	142	136	138	149	137	158	152	899	759	1,658	2·44	2·07	2·26	2·78	14
15	Kánara ...	13	13	1,289	225	39	50	50	38	22	27	31	40	31	35	31	41	266	179	445	1·12	·82	·98	·82	15
	Gujarát Registration District.																								
16	Surat ...	10	10	778	535	471	462	494	387	378	331	312	356	359	337	388	438	2,569	2,144	4,713	8·09	6·72	7·40	9·59	16
17	Broach ...	8	8	410	251	165	164	159	141	159	109	146	164	169	188	162	181	1,014	893	1,907	6·83	6·23	6·54	7·51	17
18	Kaira ...	11	11	609	532	642	574	599	542	523	466	596	524	467	579	514	631	3,598	3,074	6,672	9·58	9·02	9·32	9·68	18
19	Panch Mahals ...	7	7	693	62	23	16	17	9	15	12	10	10	11	15	18	20	131	55	176	·92	·43	·68	·69	19
20	Ahmedabad ...	12	13	874	271	335	390	465	337	303	226	210	232	305	354	324	438	2,131	1,838	3,969	5·23	4·74	4·99	4·46	20
	Sind Registration District.																								
21	Karáchi ...	11	7	633	21	51	36	33	39	28	29	29	41	36	43	47	45	328	329	657	·93	1·17	1·03	1·66	21
22	Hyderábad ...	14	12	1,412	18	81	50	61	61	62	50	55	35	44	53	66	87	319	386	705	·59	·87	·71	·82	22
23	Thar and Párkar.	12	6	669	9	5	2	...	3	2	...	...	1	...	...	...	4	13	4	17	·06	·02	·05	·07	23
24	Lárkhána ...	11	4	713	5	2	...	1	4	7	2	...	...	1	...	3	11	18	13	31	·05	·04	·05	·05	24
25	Sukkur ...	10	7	611	12	13	10	15	13	10	3	5	6	3	5	14	18	92	28	120	·82	·12	·23	·35	25
26	Upper Sind Frontier ...	5	2	391	4	...	...	...	1	...	...	...	2	...	...	2	1	6	...	6	·05	...	·03	·01	26
	Total for the Presidency ...	287	260	25,909	9,120	5,275	4,937	5,256	4,293	4,233	3,867	4,428	5,312	5,045	5,196	4,882	5,344	30,205	27,863	58,068	3·17	3·11	3·14	3·17	

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1907.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	West Khándesh...	10	9	1,186	32	40	133	200	93	5	...	8	169	401	162	26	9	583	657	1,246	2·48	2·82	2·65	9·31	1
2	East Khándesh...	15	14	1,459	133	379	706	503	224	60	...	...	173	621	349	123	90	1,633	1,603	3,235	3·37	3·39	3·38		2
3	Násik ...	16	12	1,649	25	38	23	18	13	4	...	...	61	198	87	120	43	328	277	605	·79	·69	·74	9·21	3
4	Thána ...	11	7	1,633	54	33	62	196	86	50	6	23	83	108	46	14	11	401	314	715	·95	·81	·88	1·94	4
5	City of Bombay...	1	1	1	1	171	591	2,407	1,957	649	118	73	72	119	105	63	49	4,352	2,027	6,379	7·24	5·65	6·65	19·20	5
6	Kolába ...	11	9	1,484	37	37	103	137	21	8	7	7	14	21	7	4	15	224	157	381	·74	·52	·63	1·65	6
	Central Registration District.																								
7	Ahmednagar ...	14	10	1,355	12	12	3	2	2	...	...	...	11	15	3	3	1	30	22	52	·07	·05	·06	9·01	7
8	Poona ...	12	12	1,191	100	137	93	57	36	8	5	1	62	277	615	502	338	1,114	1,020	2,134	2·24	2·08	2·16	9·37	8
9	Sholápur ...	10	6	719	14	...	...	2	22	...	...	10	3	4	57	70	22	84	103	190	·23	·30	·27	12·63	9
10	Sátára ...	15	15	1,345	569	944	977	1,020	491	322	287	1,510	3,606	9,053	2,004	4,318	1,860	18,224	18,173	36,397	32·04	31·48	31·76	19·08	10
11	Ratnágiri ...	10	7	1,308	20	57	25	41	28	15	10	22	40	57	23	29	39	194	192	386	·35	·31	·33	·47	11
	Southern Registration District.																								
12	Belgaum ...	11	11	1,077	205	212	450	600	399	343	412	686	1,553	3,320	3,489	1,740	757	7,131	6,830	13,961	14·23	13·91	14·07	20·54	12
13	Dhárwár ...	17	8	1,302	17	81	38	39	40	85	106	23	...	16	67	41	53	278	301	579	·50	·55	·52	19·67	13
14	Bijápur ...	10	2	1,118	3	...	...	...	...	...	...	...	...	...	...	6	17	4	19	23	·01	·05	·03	12·94	14
15	Kánara ...	13	1	1,289	14	...	...	...	1	1	1	17	48	115	89	78	53	202	201	403	·86	·92	·89	·78	15
	Gujarát Registration District.																								
16	Surat ...	10	8	778	135	298	376	447	199	47	20	131	346	475	194	113	86	1,318	1,390	2,708	4·15	4·35	4·25	7·49	16
17	Broach ...	8	6	410	34	75	179	395	229	21	2	6	108	408	179	20	...	673	859	1,532	5·14	6·00	5·56	4·63	17
18	Kaira ...	11	11	609	343	2,247	2,995	4,022	1,699	185	1	...	132	521	471	188	84	5,637	6,909	12,546	15·01	20·28	17·51	14·87	18
19	Panch Mahals ...	7	5	693	42	169	135	74	11	8	4	3	25	53	6	6	4	216	282	498	1·64	2·20	1·91	6·17	19
20	Ahmedabad ...	13	12	874	260	666	1,021	1,753	1096	150	3	16	177	776	625	324	110	3,040	3,677	6,717	7·46	9·48	8·45	3·23	20
	Sind Registration District.																								
21	Karáchi ...	11	4	633	6	190	185	617	410	342	107	72	32	18	77	187	109	1,435	1,211	2,646	5·83	6·16	5·98	5·79	21
22	Hyderábad ...	14	3	1,412	3	...	...	4	4	...	...	...	...	...	...	2	...	7	3	10	·01	·01	·01	·53	22
23	Thar and Párkar.	12	1	669	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	·00	...	·00	...	23
24	Lárkhána ...	11	2	713	2	...	...	...	...	...	...	...	...	...	1	21	45	53	14	67	·15	·05	·10	·01	24
25	Sukkur ...	10	4	611	5	...	...	...	15	65	21	5	...	...	...	...	3	67	42	109	·24	·17	·20	·01	25
26	Upper Sind Frontier ...	5	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	·06	26
	Total for the Presidency ...	287	180	25,909	2,067	5,782	9,078	12,522	7,376	2,368	1,110	2,613	6,714	16,578	13,656	8,009	3,803	47,324	46,285	93,609	4·96	5·17	5·06	8·80	

N. B.—These figures do not include deaths among Europeans, Eurasians and Fighting men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

Annual Reports.—

Annual Report of the Sanitary Commissioner for the Government of Bombay for the year 1907.

General Department.
No. 7075

Bombay Castle,
28th November 1908.

Letter from the Sanitary Commissioner for the Government of Bombay, No. 2074, dated 24th June 1908—

Submitting the Annual Report of his Department for the year 1907.

Memorandum from the Sanitary Commissioner for the Government of Bombay, No. 2075, dated 24th June 1908.

Memorandum from the Surgeon General with the Government of Bombay, No. S.B.-1302, dated 27th June 1908.

RESOLUTION.—In the present Report the birth-rate, 33·03 for the year 1907, very slightly exceeded the death-rate 32·82 for the year. It is to be remarked in this connection that since the year 1900, the death-rate has exceeded the birth-rate each year with the exception of 1905, until the year under report. If the reporting of births and deaths has been accurate, the population of the Presidency has been reduced since 1900 by over 78 persons per 1,000 instead of gaining an accretion of a corresponding number by the ordinary process of excess of births over deaths. In the year under report the number of deaths from cholera, small-pox and plague was considerably less than the average for the previous five years, while other diseases and causes of death showed a normal mortality compared with this quinquennium. It appears from a study of the statistics in Section VI of the Sanitary Commissioner's Report that the serious decrease in the population of the Presidency since 1900 is due, as was to have been expected, almost entirely to the ravages of plague.

Year.	Birth-rate per thousand of population.	Death-rate per thousand of population.
1900 ...	26·87	70·07
1901 ...	25·19	37·12
1902 ...	34·16	39·04
1903 ...	31·22	43·91
1904 ...	35·09	41·39
1905 ...	33·07	31·84
1906 ...	33·84	35·06
1907 ...	33·03	32·82

2. His Excellency the Governor in Council has perused with interest the account of the special enquiry conducted by the Health Department in Bombay into the causes of the high rate of infant mortality registered in that City. The enquiry has not yet continued for a sufficient period to produce results on which to base conclusions. The Sanitary Commissioner should not fail to refer briefly, in future reports, to the progress made in these enquiries.

3. The plague mortality (93,609) recorded was the highest since 1904 and was twice that of 1906 Inoculation made some progress in Poona where 11,558 persons were inoculated, and in Kaira and Satara ; but the reception still offered to this method of plague prevention continues to be extremely disappointing.

4. The 161 Municipalties of the Presidency devoted a sum of 71½ lakhs to sanitation, of which 19½ lakhs were expended on improving water-supply, drainage and conservancy in Municipal limits. Progress in the initiation of water-supply and drainage schemes has been accelerated by the offer of Government to find a contribution not exceeding 50 per cent. of the total cost towards works of this description in cases where local bodies are unable to carry out such works without assistance. The report of the Sanitary Board, contained in Appendix I, shows the schemes under consideration in this connection. The Nasik, Dharwar, Bijapur and Pandharpur water-supply schemes involving a total expenditure of 15 lakhs, and a Government contribution of 5½ lakhs, are under consideration, and the Pandharpur scheme has been sanctioned since the close of the year under report. The question of providing the larger Municipalities with properly trained sanitary experts is under the consideration of Government.

5. The work of the Port Health Office, Bombay, including the inspection and disinfection of nearly 22,000 pilgrims was satisfactorily conducted during the year by Lieut.-Colonel Jennings and his assistants.

6. The attention of the Surgeon General and the Sanitary Commissioner should be invited to paragraph 4 of Government Resolution No. 3598, dated the 15th May 1908, directing the inclusion of the reports of the Port Health Officers, Karachi and Aden, in the Sanitary Commissioner's report.

R. E. ENTHOVEN,
Secretary to Government.

To

The Surgeon General with the Government of Bombay,
The Sanitary Commissioner for the Government of Bombay,
The Health Officer of the Port of Bombay,
The Sanitary Board, Bombay Presidency,
The Commissioner in Sind,
The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
All Collectors and District Magistrates in the Presidency proper and in Sind,
The Municipal Commissioner for the City of Bombay,
The Director of Agriculture,
The Deputy Adjutant General, Southern Army,
The Compiler, General Administration Report for 1907-08,
The Chairman, Bombay Port Trust,
The Superintending Engineer, N. D.,
The Superintending Engineer, C. D.,
The Superintending Engineer, S. D.,
The Superintending Engineer, Indus Right Bank Division,
The Superintending Engineer, Indus Left Bank Division,
The Revenue Department,
The Marine Department,
The Public Works Department,
} With copies of the report.
The Government of India (by letter No. 7076, dated the 28th November 1908),
The Under Secretary of State for India (by letter),
The Editors' Table, Bombay,
The Editors' Table, Poona,
The Editors' Table, Dharwar,
The Editors' Table, Belgaum,
The Editors' Table, Karachi.

FORTY-FIFTH ANNUAL REPORT

OF THE

Sanitary Commissioner for the Government of Bombay

1908

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency

AND

The Annual Reports of the Health Officers of the Ports of Bombay, Karachi and Aden.

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1909

ANNUAL SANITARY REPORT—1908.

CONTENTS.

SECTION I.—METEOROLOGY—*Nil.*

SECTION II.—EUROPEAN ARMY—*Nil.*

SECTION III.—NATIVE ARMY—*Nil.*

SECTION IV.—JAILS—*Nil.*

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

Para.		Page
1—2.	Births and deaths among Europeans and Eurasians	1
3—4.	Native population in the Presidency	1—2
	Births.	
5.	Number of registered births	2
6.	Births by sexes	*ib.*
7.	Births by years	*ib.*
8.	Birth-rates in urban and rural population	*ib.*
9.	Birth-rates in rural registration circles	*ib.*
10.	Birth-rates in urban and cantonment circles	3
11.	Registration of births	*ib.*
12.	Still-born	*ib.*
	Deaths.	
13.	Number of deaths	*ib.*
14.	Deaths by years	4
15.	Death-rate	*ib.*
16.	Male and female death-rates	*ib.*
17.	Deaths by districts	*ib.*
18.	Deaths by collectorates	*ib.*
19.	Birth and death-rates compared by collectorates to columns 6 and 9, Annual Form II	*ib.*
20.	Deaths by ages and sexes, Annual Form IV	4—5
21—22.	Infant mortality	5—7
23.	Statistics of Ahmedabad City	7
24.	Deaths by causes	8
25.	Death-rates among urban and rural population	*ib.*
26.	Death-rates in rural circles	*ib.*
27.	Death-rates in town circles	*ib.*
28.	Death-rates in cantonments in British territory...	*ib.*
	Cantonments in Quasi-Foreign Territory.	
29.	Statistics of cantonments in quasi-foreign territory	9.

PARA. PAGE

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

30—31. Mortality in 1908 10
32. Mortality for 20 years from 1889—1908 inclusive ... ... *ib.*
33. Cholera producing causes and preventive measures adopted ... 10—12

SMALL-POX.

34. Deaths from small-pox ... ... *ib.*
35. Deaths by districts and collectorates 13

FEVER.

36. Deaths from fever ... ... *ib.*
37. Deaths by registration districts and collectorates ... ... 13—14
38. Deaths by months 14
39. Malarial fevers ... ... 14—15

RAINFALL.

40. Rainfall 15

PLAGUE.

41. Deaths from plague ... ... 15—16
42. Deaths by towns and cantonments 16
43. Deaths by months ... ... *ib.*
44. Plague preventive measures ... ... 16—17

INOCULATION.

45. Numbers inoculated 17
46. Deaths among the inoculated ... ... *ib.*

DYSENTERY AND DIARRHŒA.

47. Deaths from dysentery and diarrhœa 18
48. Deaths since 1897 ... ... *ib.*
49. Deaths by collectorates ... ... *ib.*

INJURIES.

50. Deaths from injuries ... ... 18—19
51. Deaths from snake-bite by collectorates 19
52. Details of injuries ... ... *ib.*

RESPIRATORY DISEASES.

53. Deaths from respiratory diseases ... ... 19—20
54. Deaths by registration districts, collectorates and towns 20

OTHER CAUSES.

55. Deaths from other causes 20
56. Deaths by registration districts and collectorates ... ... *ib.*

SECTION VII.

57. General history of vaccination 21

SECTION VIII.

58. Sanitary Works—Military 21

SECTION IX.

Sanitary Works—Civil.

59. Expenditure on sanitary works in municipal towns and Local Boards during 1907-08 21
60. Bombay Village Sanitation Act ... ... 21—23
61. Village Sanitary Inspection Book 23

PARA. PAGE

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

62. Charge of the office of the Sanitary Commissioner 24
63. The districts visited by the Sanitary Commissioner ... ... *ib.*
64. Tours of the Deputy Sanitary Commissioners ... ... *ib.*

APPENDIX I.

Annual Report of the Sanitary Board for 1908 ... ... 1—3

APPENDIX II(*a*).

Annual Report of the Health Officer of the Port of Bombay for 1908 ... 4—10

APPENDIX II(*b*).

Annual Report of the Heath Officer of the Port of Karáchi for 1908 ... 11—12

APPENDIX II(*c*).

Annual Report of the Health Officer of the Port of Aden 12

APPENDIX III.

Table showing the drainage and water works completed in certain towns ... 12

APPENDIX IV.

Births registered in districts 13
Deaths registered in districts 14
Deaths registered in the districts during each month of the year ... 15
Deaths registered in the districts according to age ... ... 16—17
Deaths registered in the districts according to classes ... ... 18—19
Deaths from different causes in the districts and towns ... ... 20—27
Deaths from cholera in the districts during each month of the year ... 28
Deaths from small-pox in the districts during each month of the year ... *ib.*
Deaths from fever in the districts during each month of the year ... 29
Deaths from dysentery and diarrhœa in the districts during each month of the year ... ... *ib.*
Deaths from respiratory diseases in the districts during each month of the year 30
Deaths from plague in the districts during each month of the year ... *ib.*

ANNUAL SANITARY REPORT FOR 1908.

SECTION I.—METEOROLOGY.—No remarks.

SECTION II.—EUROPEAN ARMY.—No remarks.

SECTION III.—NATIVE ARMY.—No remarks.

SECTION IV.—JAILS.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

European and Eurasian—Vital Statistics.

1. The European population in the Bombay Presidency, exclusive of cantonments in quasi-foreign territory, is 18,804, according to the census of 1901. During the year 1908, 329 births and 309 deaths were recorded, against 362 and 302 in 1907, giving a birth-rate of 17·50 per mille, against 13·93 in 1907, and a death-rate of 16·43 against 16·06. By sexes, 170 males and 159 females were born, against 193 and 169 in 1907, and 189 male and 120 female deaths were recorded against 193 and 104 in 1907.

2. The Eurasian census population of 1901 is 6,557. During the year 129 births were registered against 168 in 1907, and 177 deaths against 150, corresponding to a birth ratio of 19·67 per mille against 25·62 in 1907, and a death ratio 26·99 against 22·88. Of the births 68 were males and 61 females against 89 and 79 in 1907, whilst of the deaths, 100 were males and 77 females against 79 and 71 in 1907.

Native Population—Vital Statistics.

3. For the compilation of these statistics the census figures of 1901 have been used, showing a native population for the Presidency of Bombay including Sind of 18,481,362 persons.

The violent fluctuations in population caused by plague and famine preclude the possibility of applying with accuracy any of the methods usually adopted for calculating the population at intercensal periods. During the ten years ending with the year 1900, the recorded deaths exceeded the births by a few thousands short of a quarter of a million, while at the census of 1901 the actual fall in population was found to exceed those figures by nearly one lákh. During the eight years ending with the year under report the recorded deaths have exceeded the births by close upon half a million.

The conditions as regards birth registration are but little changed, except in a few places, since the last intercensal period, and notwithstanding the improved relationship of births and deaths during the past three years, a further fall in the population of the Presidency amounting to over half a million may be expected at the next census.

During the ten years 1891—1900 the decrease in population was effected in the last four years of the period by plague and an unprecedented famine

whilst during the current intercensal period the continued high mortality has been almost entirely due to plague.

4. Statistical returns are received from 26 Collectorates comprising 224 Rural Circles and 58 Town Circles, also from 7 Cantonments in British and 8 in Foreign territory.

The population of the Rural Circles was 16,027,055, of the Town Circles *2,584,389, of the Cantonments in British territory 68,980 and of the Cantonments in Foreign territory 120,736 persons.

Births.

5. The births registered in the Bombay Presidency including Sind in the year 1908 numbered 660,201, and were in the proportion of 35·72 per 1,000 of population at all ages. These figures show an increase of 49,668 over the previous year's returns, and also exceed by 76,001 the mean of the previous ten years.

In Gujarát the birth-rate was 39·72 against 37·03 in 1907. It ranged from 36·41 in the Ahmedabad to 47·70 in the Panch Mahál Collectorate, and compared with the preceding year, there is an increase in all Collectorates, the increase being most marked in Ahmedabad Collectorate.

In the Southern Registration District, the birth-rate was 36·89 per mille as against 32·53 last year and varied from 28·46 in the Kánara Collectorate to 44·21 in the Bijápur Collectorate. All Collectorates show an increase but more especially Belgaum and Dhárwár.

In the Western Registration District the recorded birth-rate for the year was 45·37 per mille as against 37·73 last year, and the variations were from 36·21 in Kolába to 56·53 in West Khándesh. East Khándesh alone shows a slight decrease as compared with last year, whilst there is a great improvement in the figures of Násik, Thána and Kolába Collectorates.

In the Central Registration District the birth-rate rose from 35·10 to 36·63 per mille, all Collectorates sharing in the increase with the exception of Sholápur.

In Sind some improvement was also noticeable, the registered birth-rate rising from 18·24 per mille in 1907 to 21·03 per mille for the year under report. Sukkur and Lárkána are the two Collectorates showing the most improvement.

In Bombay City 19,888 births were registered against 19,208 in the previous year.

Births by sexes—Annual Form I.

6. There were 342,669 male and 317,532 female births recorded during the year, against 316,867 and 293,666 in 1907. For every 100 females born, there were 107·92 males as compared with 107·90 in the previous year.

Births by years.

7. The following statement shows the number of births recorded in each year since 1898 :—

1898 ...	582,371	1902 ...	631,393	1906 ...	625,486
1899 ...	685,348	1903 ...	576,949	1907 ...	610,533
1900 ...	505,662	1904 ...	648,594	1908 ...	660,201
1901 ...	465,647	1905 ...	611,173		

Birth-rates in Urban and Rural population.

8. The recorded birth-rates among the urban and rural populations of the Presidency were 26·32 and 36·92 against 20·24 and 34·08 in 1907. Except in the Collectorates of Thána, Dhárwár, Kánara and throughout Sind, except Upper Sind Frontier, the rural birth-rates exceeded the urban.

Birth-rates in Rural Registration Circles.

9. Out of a total of 224 Rural Circles a birth-rate of over 40 per mille of population was registered in 89, while in 35 Circles the recorded birth-rate was below 20 per mille, 34 of the 35 Circles being in Sind.

*Includes population of Bombay City according to the Census of 1906.

Birth-rates in Urban and Cantonment Circles.

10. Two more towns, Bándra and Jalgaon, have been added to the Urban Circles during the year, making 58 in all, and out of these 58 towns and 7 Cantonments in the Presidency, 7 towns recorded a birth-rate exceeding 40 per mille, viz., Karáchi (57·69), Nasirabad (41·31), Borsad (42·99), Dhulia (46·51), Dholka (43·12), Athni (51·52) and Násik (44·11), while 13 towns and 6 Cantonments recorded birth-rates below 20 per mille.

Registration of Births.

11. It appears that 22 per cent. of the Urban Circles and 16 per cent. of the Rural Circles returned birth-rates below 20 per mille of population and a few of the worst defaulters among the Urban Circles are given below :—

	Ratio for the town.	Ratio for the district.
Ratnágiri	19·76	30·49
Surat	19·30	36·56
Ahmedabad	19·18	36·41
Sátára	14·08	34·40
Sholápur	10·16	36·27
Poona	9·27	36·86

Any suggestions which may be made for the improvement of registration are met with the statement that Municipal towns have bye-laws on the subject, with penalties in case of non-observance. Bye-laws exist, but are for the most part a dead-letter, and registration of vital statistics is not considered of sufficient importance as to require the employment of a special staff.

The scheme for the improvement of registration in Sind, to which reference was made in the Annual Report for 1906, did not meet with the approval of Government, and meanwhile registration in Sind remains *in statu quo*. What can be accomplished where energetic measures are adopted, is illustrated in the case of Karáchi, Lárkána and Sukkur towns, where ratios of 57·69, 39·88 and 37·94 per mille respectively were registered, as compared with 25·85, 22·76 and 24·25 per mille respectively for the Districts.

Again, as the outcome of a protest sent to the Collector of Násik by the Deputy Sanitary Commissioner, Western Registration District, on the subject of registration in Násik city, the registered birth-rate for 1908 was 44·11 per mille as compared with a mean ratio for the previous five years of 21·17 per mille.

It cannot be denied that if the Collectors of Districts were to take up the question of registration much improvement would result.

Still-born.

12. During the year 1908, 10,304 (or 1·56 per cent.) of the total births were registered as "still-born," against 10,530 or (1·72) in 1907. Of these 5,716 were males and 4,588 females against 5,863 and 4,667 respectively in 1907. The percentage of still-born to born alive is, as usual, highest in Bombay City and in Kánara, 9·04 per cent. and 5·25 per cent. respectively, compared with 9·49 and 6·32 in 1907. An examination of the "still-born" rates for each Collectorate shows great variations, ranging from ·09 per cent. in Ahmednagar Collectorate to 9·04 per cent. in Bombay City. Half the Collectorates return a still-birth rate of under one per cent. of total recorded births, a rate which must be very far from the truth, considering the early age at which Indian women begin to bear children, and the little care and attention during child-birth. The high rate in Bombay City and Kánara District has been frequently commented on in previous reports.

Deaths.

Number of deaths.

13. Among the native population, in the Rural, Town and Cantonment Circles in the Presidency, 501,838 deaths were registered in 1908, as against 606,606 or 104,768 less than in 1907. Of the total deaths registered 261,646 occurred among males and 240,192 among females, against 313,890 and 292,716 respectively in 1907; 27,345 (or 5·45 per cent.) were due to plague, as against 93,609 (or 15·43 per cent.) last year.

For the year under report the number of deaths recorded is the lowest since the first appearance of plague.

Deaths by years.

14. The following statement shows the number of deaths recorded in each year since 1898 :—

1898	... 548,825	1902	... 721,462	1906	... 648,019
1899	... 672,269	1903	... 811,525	1907	... 606,606
1900	...1,318,783	1904	... 764,914	1908	... 501,838
1901	... 686,134	1905	... 588,394		

Death-rate.

15. The recorded death-rate was 27·15 per mille against 32 82 per mille for 1907 and a decennial mean of 39·64.

Male and female death-rates.

16. The rate per mille of males dying to males living was 27·56 and of females dying to females living 26·83. In 1907 these ratios were 32·94 and 32·70 respectively. For every 100 deaths among females there were 108·93 among males as against 107·23 in the previous year.

These figures vary from 129·58 in Bombay City to 94·90 in the Panch Mahâls Collectorate, while in the Province of Sind the ratio was 116·83 male to every 100 female deaths.

Deaths by districts.

17. In the Western, Central, Southern, Gujarát and Sind Registration Districts, the recorded deaths in 1908 were 109,148, 118,616, 86,651, 87,040, 62,057, as against 158,389, 172,177, 99,823, 104,527 and 71,690 in the previous year, showing a notable decrease in each case. The recorded deaths in Bombay City were 37,876.

Deaths by Collectorates.

18. Compared with the previous year there was a decrease in the recorded death-rate in all the Collectorates excepting Thána, Dhárwár, Bijápur, Panch Mahâls and Karáchi.

In the two first Collectorates the variation was very slight. In the Karáchi Collectorate the increased mortality was confined to the Urban area and is shown under the heads of cholera, small-pox, plague, fever and "other causes." Both Urban and Rural areas share the increase in the Panch Mahâls and Bijápur Collectorates, which is attributable mainly to plague, fever, respiratory diseases and "other causes."

Birth and death-rates compared by Collectorates to columns 6 and 9, Annual Form II.

19. An examination of columns 6 and 9, Annual Form II, shows the death-rates exceeded the birth-rates in the Collectorates of Kánara, Ahmedabad and Hyderabad. In Bombay City the death and birth rates were 39·47 and 20·73 respectively.

In Hyderabad Collectorate and in Bombay City the excess of deaths over births is attributable to the low birth-rate recorded, while in Kánara Collectorate a high fever mortality, added to an increased number of deaths from cholera, is the cause.

For the whole Presidency the birth-rate exceeded the death-rate by 8·57 per 1,000 of population.

Deaths by ages and sexes, Annual Form IV.

20. With a system of death registration, fairly accurate as to numbers and age periods, but very imperfect as regards causes of death, the table printed as Annual Form No. IV is most useful in showing at a glance whether the year has followed a normal or abnormal course as regards mortality. For the whole Presidency the year under report may be considered as fairly normal. The figures of mortality show that the greatest number of deaths occurred at the two extremes of a life, while there was a steady rise from the young and healthiest to the older age periods, without any of the violent fluctuations which mark the prevalence of epidemic disease.

A comparison of the figures given in Annual Form IV for the last 10 years with similar statistics for England and Wales shows certain interesting features.

The curve of mortality follows the same course although on a higher level, but the death-rate by sexes shows a marked variation.

The English tables show that during the first five years of life the mortality among male children is higher than among female children; that between the age of 5 and 15 the male sex has a slight advantage, while after that period female mortality is lower than male mortality at every age group. The higher mortality among males after 15 years of age is associated with the greater risks men have to undergo in their various occupations, which more than counterbalance the risks of child-birth.

The Indian figures follow the same course up to the age period 10—15 years, but after this age the advantage in favour of the female sex is not apparent until the age period 30—40 years is reached, showing that any increased risk to males from causes due to occupations is more than counterbalanced in the case of females by the risks attending child-birth.

If, in the next Census returns, tables were included showing the age, sex, and civil condition of the population in all the largest towns and also by tálukas, as is now done by Collectorates, much useful information would be made available for statistical purposes.

Infant mortality.

21. The mortality of infants, based on the number of registered births, was 185·57 per 1,000, the proportion being 191·85 among males and 178·70 among females, as compared with 207·33 and 190·10 respectively during the previous year.

The decline in the general death-rate has brought about a corresponding lowering of the infantile mortality rate, which is shared by all Collectorates with the exception of Ratnágiri, Bijápur, Surat, Broach, Panch Maháls and Ahmedabad, and also of Bombay City. Little reliance can be placed on the accuracy of these figures, but it is probable that an infant mortality rate of 185·57 per 1,000 births for the whole Presidency is too low. One noteworthy feature in the records of deaths among infants is the ratio of deaths among male and female infants in Kaira District and throughout the Province of Sind. Throughout the greater part of the Presidency as in England and Wales, the ratio of deaths per 1,000 births among male infants is greater than among females, and it is only in the areas mentioned that any divergence from the rule is noticed. In these areas the ratio of deaths per 1,000 births is markedly higher among female infants than among males. Based on available statistics, the highest rate of infant mortality outside Bombay City, is shown in Ahmedábad Collectorate (292·49) and the lowest in Ratnágiri Collectorate (110·52). The highest average for a Registration District is returned by Gujarát (226·52) and the lowest by the Southern Registration District (146·21).

The records of mortality by months show no connection between infant mortality and a particular time of year as in England, but at any rate indicate that on the whole the healthiest months are those immediately preceding the rains, which applies also to the adult population.

22. In Bombay City the ratio of infant mortality based on recorded statistics was 452·67 per 1,000 births. The Executive Health Officer of Bombay has made out a corrected birth-rate for the city based on additions to the register of children who are born out of Bombay of mothers belonging to the city, and who are brought back to Bombay; and also on an estimate of the births occurring in the city which escape registration.

According to this estimate the number of births for the year is calculated as 31,738 in place of 19,888, the actual registered number. This gives a birth rate of 32·4 per 1,000 of population instead of 20·73. Calculating the infant mortality on the new estimate of births the ratio per 1,000 births is reduced from 452·67 to 286, a sufficiently high ratio, but one more in accordance with probabilities.

The further results of the enquiries into infant mortality in Bombay are embodied in the following extracts from the Annual Report for 1908 of the Executive Health Officer, Bombay Municipality:—

"The inquiries into the causes of death of infants under one year and the mortality due to puerperal diseases have been continued.

"The following tables show the number of births registered in this City during the year 1908 and also the various causes of death in infants under one year of age.

TABLE A.

"This table gives various facts relating to births and the work done by the nurses. The corresponding figures for 1907 are inserted.

		1908.	1907. (July to December.)
Total number of births	... ...	20,166	11,785
Number verified by the nurses	... ...	12,797	5,412
Percentage of the number verified to the total	... ...	63·4	45·9
Do.	still-born to the number verified	10·9	11·3
Do.	children dying within 30 days	15·2	17·1
Do.	confinements attended by Municipal nurses ...	4·0	5·7
Do.	children born in a healthy condition	53·5	61·0
Do.	children fed on breast	67·8	73·0
Do.	cases where the mother left home for work ...	29·9	30·0
Do.	confinements attended by unskilled women 43·14	74·16	79·8
Do.	confinements unattended ... 31·02		
Do.	children born in hospital	12·1	13·7
Do.	confinements attended by qualified nurses... ...	13·6	6·5

TABLE B.

"This table shows the total number of deaths of infants under one year and also the total deaths under the three age-groups 1 to 30 days, 1 to 6 months, and 7 to 12 months.

Age period.	Year.	All causes.	Ague and Remittent fever.	Small-pox.	Measles.	Diarrhœa and Dysentery.	Premature birth.	Debility.	Nervous system.	Respiratory system.	Malaria.
1—30 days	1908 ...	3,078	21	10	2	52	179	2,445	257	64	1
	1907 ...	3,056	15	...	...	54	186	2,427	243	80	...
1—6 months	1908 ...	2,807	82	88	47	254	...	335	814	1,062	7
	1907 ...	2,478	69	5	11	247	...	318	693	1,012	1
7—12 months	1908 ...	3,192	103	138	189	457	...	92	332	1,431	13
	1907 ...	2,742	106	14	24	444	...	105	301	1,424	2
Total ...	1908 ...	9,077	206	236	238	763	179	2,872	1,403	2,557	21
	1907 ...	8,276	192	19	35	745	186	2,850	1,237	2,516	3

"It will be seen that the total infant mortality was greater in 1908 than in 1907 by 801. This is mainly due to an increase in the number of deaths under small-pox (217), measles (203), and diseases of the nervous system (166).

"The number of deaths registered from puerperal fever was 360, while the number of deaths due to diseases of the generative system in females, following parturition, was 130.

"In my annual report for last year I stated that 'the remedy appears to be more skilled attendance in confinement, more sanitary surroundings and facilities for obtaining medical aid and food for mother and child to compete against poverty and ignorance.'

"In the extended enquiries made since then I am still of that opinion. Out of 20,166 children born during the year, 3,078 died before reaching the age of 30 days. The cause of death given of 2,445 of them was debility.

"2,807 of the children born during the year died before reaching the age of 6 months, the cause of death being 9·0 per cent. diarrhœa, 11·9 debility, 29·9 diseases of the nervous system (convulsions), and 37·8 respiratory diseases.

"3,192 of the children born during the year died before reaching the age of 12 months, the cause of death being 10 per cent. infectious diseases, 14 per cent. diarrhœa, 10 per cent. diseases of the nervous system (convulsions), and 44·8 respiratory diseases.

"The death of the majority of children born in the first month after birth is due to debility, *i. e.*, want of vitality, premature births, wilful or ignorant neglect and the method adopted by the women attending the labour.

"In the second group 1—6 months, the causes are respiratory diseases, which give the highest mortality, diseases of the nervous system, debility, diarrhœa or, in other words, exposure and defective feeding.

"In the third group 7—12 months, respiratory diseases and diarrhœa are the chief causes or, in other words, exposure and defective feeding.

"The practical remedies I suggest are—(1) the provision of lying-in-hospitals for the poor, and free medical attendance and provision of a nurse before and after child-birth; the provision of lying-in-hospitals will, by giving the mother good food, nursing and skilled attendance, do much towards giving the infant a start in life and enable the mother to provide breast milk to support the child: (2) the education of the native midwives at the hospital and the registration and licensing of these women; the control over the native women who attend confinements is of the greatest importance and a hospital such as I suggest would do a great deal in the direction of training such women and it would provide outdoor qualified women free, or at a small fee, who would be able to attend and advise the mother during and after confinement: (3) the introduction of a section of the Act so as to prevent a woman without a certificate and license to attend on a confinement; only women thus trained should be allowed to attend confinements and all such women licensed and registered: (4) the provision of Municipal milk depôts where women could obtain pure milk at a small cost; this subject was dealt with by me exhaustively on previous occasions, but my suggestion was not accepted by the Corporation.

"The above are some practical suggestions for the reduction of infant mortality, the reduction of mortality in women during puerperal state and the improvement of the health and physique of the child."

Statistics of Ahmedabad City.

23. The general death-rate in Ahmedabad City fell from 57·22 to 56·54 per mille, the mean for the last five years being 57·56. Plague caused 507, fever 4,395 and respiratory diseases 2,087 deaths as against 1,531, 4,744 and 2,422 respectively last year.

There were 3,475 births recorded or 19·18 per mille of population, the deaths exceeding the births by 37·36 per mille. The deaths registered under one year of age were 3,394 corresponding to a ratio of 976·69 per 1,000 of births. These figures cannot be accepted as representing actual facts, but even if the number of births is calculated on a ratio of 40 per 1,000 of population and an increase in population allowed for, which is a doubtful quantity considering the continued high death-rate of the past 10 years; even with all these allowances the registered infant mortality would correspond to a ratio of 400 per 1,000 births.

These figures are sufficiently appalling, and, added to the persistently high general mortality, demand an explanation.

The basis of any enquiry must be accurate statistics, correct registration of births and deaths and, as far as possible, the causes of deaths; and proceeding on the lines of the enquiries, which are being successfully carried out in Bombay City, the Municipality of Ahmedabad can collect the data which are required before any further investigations can be initiated.

Deaths by causes.

24. The subjoined table shows the deaths in 1908, arranged according to causes, and contrasted with the results for 1907, and with the mean of the preceding five years :—

	Mean for five years, 1903 to 1907.		1908.		1907.	
	No.	Ratio per 1,000 of population.	No.	Ratio per 1,000 of population.	No.	Ratio per 1,000 of population.
Cholera ...	14,830	·80	1,759	·09	7,656	·41
Small-pox ...	5,990	·32	2,526	·14	1,862	·10
Plague ...	144,345	7·81	27,345	1·48	93,609	5·06
Fever ...	258,278	13·98	243,372	13·17	260,329	14·09
Dysentery and diarrhœa.	57,569	3·12	40,781	2·21	53,708	2·91
Respiratory diseases ...	58,429	3·16	54,671	2·96	58,068	3·14
Injuries ...	6,648	·36	7,109	·38	6,799	·37
Other causes ...	137,802	7·46	124,275	6·72	124,575	6·74
All causes ...	683,891	37·00	501,838	27·15	606,606	32·82

For comments on the causes of deaths, *vide* Section VI.

25. The recorded death-rates, among the urban and rural population and in the 7 Cantonments in British territory, are given in Table VI, Appendix IV, and for the 8 Cantonments in foreign territory on paragraph 29. The urban and rural death-rates were 37·50 and 25·10 per mille, as against 38·19 and 31·54 in 1907. In 10 Collectorates out of 26, the rural death-rates exceeded the urban rates.

Death-rates in Rural Circles.

26. In six Rural Registration Circles the recorded mortality was above 40 per mille, and in 55 it fell below 20 per mille, 42 of these being in Sind.

The six Rural Circles recording very high death-rates were Edalabad (East Khándesh), Supa (Kánara), Vágra and Amod (Broach), Dholka (Ahmedabad) and Nasrat (Hyderabad), all of which show a high ratio of mortality from "fever" which conveys little information.

Death-rates in Town Circles.

27. In four Town Circles, out of a total of 58 the recorded death-rates exceeded 50 per mille. Dhárwár, Ahmedabad, Karáchi and Násik returned rates of 59·29, 56·54, 56·11 and 50·34 respectively. In Dhárwár out of the total of 1,814 deaths, 921 were due to plague, while in Karáchi out of a total of 6,335 deaths, 2,777 were attributed to the same cause.

Násik, as a place of pilgrimage, is always liable to have its normal death-rate increased, and as the Sinhast Fair was in progress during the latter half of the year, this cause was more active, aided by cholera, small-pox and plague.

In Ahmedabad City the exact cause of the high death-rate is difficult to determine as nearly half the deaths are registered as due to fever, but plague was prevalent, and the entries under respiratory diseases are very high.

Seven other towns recorded death-rates of over 40 per mille. These are Nasirabad (East Khándesh), Kalyán (Thána), Poona, Viramgám and Dholka (Ahmedabad), Hyderabad and Shikárpur, in most of which places plague was the chief contributor.

In Hyderabad and Shikárpur cholera and fever were the main causes of mortality.

Death-rate in Cantonments in British territory.

28. During the year under report the death-rates in the Cantonments from all causes were normal with the exception of Poona and Kirkee, in both of which Cantonments plague was prevalent.

Cantonments in Quasi-Foreign Territory.

Statistics of Cantonments in quasi-foreign territory.

29. The following table shows the vital statistics of the civil population of those Cantonments which are situated in quasi-foreign territory. The total number of births registered in these Cantonments during the year 1908 was 2,163 against 2,149 in 1907, the birth-rate being 17·92 per mille, as against 17·80 in 1907. There were 4,044 deaths, giving a ratio of 33·49 per mille, against 3,138 and a ratio 25·99 in 1907 :—

Statement showing the names of Cantonments with population and deaths by diseases for the year 1908.

Cantonments.	Population according to census of 1901.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from							Ratio of deaths per 1,000 of population.						
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Injuries.	Other causes.	All causes.
Aden. Municipal Limits.	36,323	67·	537	693	19·08	...	293	...	289	557	15	861	2,015	...	8·06	...	7·09	15·33	·41	23·70	55·47
Aden. Purely civil population of Cantonment.	206	7·	28	...	...	...	...	...	2	...	...	1	3	...	...	...	9·71	...	...	4·85	14·56
Baroda	2,704	1·	2,704	46	17·01	...	...	...	8	4	1	43	56	...	...	...	2·96	1·48	0·37	15·90	20·71
Bhuj	741	1·16	638·79	9	12·15	...	...	...	7	1	1	3	12	...	...	...	9·45	1·34	1·34	4·05	16·19
Deesa	8,536	5·	1,713·20	165	19·26	...	4	...	109	...	...	21	134	...	0·47	...	12·72	...	...	2·45	15·64
Mhow	34,740	6·	5,790	230	6·62	1	...	7	139	24	...	613	784	03	...	0·20	4·00	0·69	...	17·64	22·57
Nasirabad ...	22,494	8·53	2,621·68	706	31·39	...	7	...	419	73	9	298	806	...	·31	...	18·63	3·24	·40	13·25	35·83
Neemuch ...	14,624	4·52	3,235·40	308	21·06	...	...	...	109	6	1	113	229	...	...	...	7·45	·41	·07	7·73	15·88
Rajkot	388	·56	692·58	6	9·14	...	...	...	...	...	...	5	5	...	...	...	...	...	...	7·62	7·62
Total ...	120,736	100·82	1,197	2,163	17·92	1	304	7	1,082	665	27	1,958	4,044	·00	2·52	·03	8·96	5·51	·22	16·22	33·49

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Mortality in 1908.

30. In Annual Form VII are set forth the deaths from cholera for each district by months, the number of registration circles affected, and the number of villages from which cholera was reported, etc.

31. During the year 1908 there were 1,759 deaths recorded as due to cholera compared with 7,656 in 1907. A reference to Annual Form No. VII will show that the disease was almost entirely confined to the Collectorates of Kánara, Karáchi, Hyderabad, Násik, Thána, Kolába, Broach, Thar and Párkar and Bombay City.

Of the total number of recorded deaths, 500 were reported from the Collectorate of Kánara, 483 from Karáchi, 421 from Hyderabad, 106 from Násik, 88 from Thána, and 95 from Bombay City.

Nine towns reported deaths from cholera, Hyderabad 211, Bombay 95, Násik 75, Kárwár 50, Karáchi 47, Broach 20, while in the remaining three towns the mortality was trivial.

Among the 34 Rural Circles in which cholera was prevalent during the year, the highest mortality occurred in Honávar (Kánara) 219, Kotri (Karáchi) 203, and Sujáwal (Karáchi) 114.

More than half the mortality took place during the months of June, July and August, the period of greatest prevalence in Sind. It will be noticed that deaths from cholera were registered in every month of the year in Bombay City and in Kánara District. This is a common occurrence in Bombay, where communication with the rest of the Presidency is so extensive, but in an isolated district it is unusual to find an epidemic and a comparatively slight one persisting throughout the year.

Mortality for 20 years, 1889 to 1908 inclusive.

32. The following table shows the total number of deaths from cholera in each of the twenty years ending 1908:—

1889	32,431	1894	33,588	1899	8,579	1904	13,156
1890	3,259	1895	8,890	1900	163,889	1905	5,396
1891	17,850	1896	35,404	1901	13,600	1906	46,119
1892	42,900	1897	57,109	1902	3,229	1907	7,656
1893	18,853	1898	4,368	1903	1,825	1908	1,759

It will be seen that the mortality in 1908 is the lowest during the past 20 years and that there is only one other year (1903) approaching this one in respect of its cholera mortality.

Cholera producing causes and preventive measures adopted.

33. Major Marjoribanks, I. M. S., Deputy Sanitary Commissioner, Western Registration District, reports:—"Cholera first made its appearance in a quarter of Násik City known as Madhliholi in the persons of two pilgrims living in different parts of the same street, on 9th December. Both took their drinking-water from the Rám Gayá Kund, one of the lowest pools of the Godávari at Násik.

"Next a resident of Násik, who lived in Madhliholi, contracted the disease. He did not live in the same street as either of the other two, nor had he any connection with them, but he also got his water from the Rám Gayá Kund.

"Further cases occurred in Madhliholi, and the neighbouring quarter of Kajipura, the circumstance common to all being that the victims took their water either from or below the Rám Gayá Kund.

"The Municipal authorities were fortunately able to grasp the situation more firmly than they did in 1906, and under the direction of the Civil Surgeon not only were all the Municipal wells permanganated, but also the entire series of sacred pools in the Godávari, commencing above the Lakshman Kund and including even the Rám Kund, the holy of holies among the pools, the attempt at permanganation of which had been abandoned on account of the obstructive and threatening attitude of the local Bráhmin priests in 1906; in which year the disease spread from Násik into the surrounding country in the most disastrous way. Large quantities of permanganate were required for this extensive undertaking, as much as 30 lbs. being used at one time.

"The precautions taken against the importation of cholera into Násik and its development there during the Sinhast were very thorough, and included inspection by a staff of Hospital Assistants of all incoming and outgoing pilgrims at the Railway Station, and the provision of a fully equipped cholera hospital near the station, one in Násik City, maintained by the Municipality and one at Trimbak. A certain amount of extra equipment and accommodation for patients were also provided at the dispensary of the village of Pimpalgaon Basvant on the Agra Road, the only cases which occurred in connection with the festival before December were one at this village in July and one at Trimbak in August."

The Sinhast festival, which is held once in twelve years and which continues uninterruptedly for twelve to fourteen months, is naturally very largely attended, while the crowd of pilgrims is greatly swollen at intervals as the usual Hindu holidays come round. Opening in the rains of 1908 the festival had continued without mishap up to almost the close of the year, thanks to the excellent organization in force.

There were, however, conditions prevailing which made it well nigh impossible to keep cholera out indefinitely. Though not prevalent to any great extent, there were many widely scattered small foci of disease in various parts of the Presidency, not to mention other parts of India from whence pilgrims flocked to Násik. Moreover the season was favourable for cholera; the failure of the late rains had reduced the water in the Godávari to a level usually reached in February. Great credit is due to all concerned for the prompt manner in which the disease was attacked, and the fact that free permanganation of all sources of water was allowed, marks a great advance and renders the local restriction of the disease comparatively easy. Unfortunately a scare usually follows the first signs of an outbreak and large numbers of pilgrims escape, bearing infection with them.

Cholera is an endemic disease of the country but there is no doubt that, in ordinary times, places of pilgrimage are the starting points of epidemics and all such places need special attention. A representation on the question of the water-supply of Násik, as it affects pilgrims, has been submitted to Government.

Major Hutchinson, I. M. S., Deputy Sanitary Commissioner, Southern Registration District, observes:—"The villages infected were all either on the coast line or on rivers and the population of all included many fishermen.

"In Bhatkal Petha three villages were attacked—Hadil, Shirali and Bengre.

"In Shirali the epidemic was most serious—a case mortality of nearly 69 per cent. The Mahálkari states that fisherwomen only were first attacked and he attributes the outbreak to the dirty habits of the women, and the practice of eating putrid fish. The disease was carried to Bengre owing to its proximity to Shirali in which also fishermen reside, and they take these partially dried fish to other villages for sale. The origin of the disease in Hadil cannot be traced.

"In Honávar Táluka the disease first appeared in Kasarkod. The Mámlatdár states that the epidemic was brought from Sirúr in South Kánara. There is trade in coarse sugar between the two villages. The only case in the village of Kulganoor was in a fisherman, who used to frequent the fish salting yards of Kasarkod. The outbreak in Mugwe is also attributed to the visits of fishermen from Kasarkod.

"In practically all the villages affected thereafter direct communication with an infected village was proved, in fact the people who died from cholera had themselves been to infected villages. It seems probable that in Honávar Táluka the epidemic was spread by dealers in fish.

"In Kumta Táluka the disease was first noticed in Divagi, a small village of 817 population on the Tudadi river; on the 20th November a fishing boat arrived on board of which a sailor had cholera. The first case of cholera in Divagi was reported on 30th November.

"In Gokarn Town the outbreak is said to have followed the arrival at Tudadi of a vessel from Mangalore loaded with tiles for Bombay. Cholera apparently was prevalent in Mangalore, one of the crew died from cholera the day after the arrival of the vessel in port. He had been ill some days. When news of this event was received the vessel was quarantined."

Captain Cazaly, I. M. S., Acting Deputy Sanitary Commissioner, Sind Registration District, writes:—"The first case occurred in the village of Khánpur, táluka Kotri, district Karáchi, on 21st May 1908. The village is situated on the bank of the Indus and the first victim was a fisherman. The Collector of the district was at once communicated with on the subject and requested to take early precautions in order to check the further spread of the disease, but in spite of the measures taken, the disease assumed an epidemic form and involved other districts, affecting the larger towns on the left bank of the Indus in the Hyderabad District first and then spreading to Thar and Párkar.

"All the District, Revenue and Railway officers were supplied with copies of instructions for dealing with the cholera outbreak in the Province and the information to hand shows that all the necessary precautions were adopted, *viz.*, disinfection of drinking water supplies with permanganate of potash, cleansing of towns and villages affected by cholera, erection of small camps for the accommodation of patients outside the towns, destruction of unripe and rotten fruit and prevention of persons actually suffering from the disease from travelling by rail from one station to another. These efforts appeared to check the disease and prevent it spreading to other districts."

Lieutenant-Colonel Armin, I. M. S., Deputy Sanitary Commissioner, Gujarát Registration District, reports, with reference to the outbreak in Broach Town, that cholera was almost certainly introduced through the shipping at the port of Broach. Cases of cholera had occurred on native craft at the Bandar, and a large number of those affected in the town lived along—side the river and used river water for drinking purposes.

As already mentioned an outbreak of cholera on the Kánara Coast was traced to infection through seamen.

The local authorities at these small ports have no control over the shipping entering the ports, and as it appears highly desirable that they should have power to examine ship's crews, and also to deal with infected vessels, this question has been brought to the notice of Government.

Small-pox.

Deaths from small-pox.

34. Under this head 2,526 deaths—1,395 males and 1,131 females—were registered during the year against 1,862 in the previous year and a decennial mean of 5,114.

The number of deaths registered as due to small-pox since 1897 is as follows:—

Year.	Number of deaths from small-pox.	Year.	Number of deaths from small-pox.
1897	3,835	1903	2,752
1898	1,834	1904	4,289
1899	1,946	1905	16,985
1900	9,885	1906	4,063
1901	5,340	1907	1,862
1902	2,189	1908	2,526
Total ...	25,029	Total ...	32,477
Mean ...	4,171	Mean ...	5,413

35. Small-pox is prevalent throughout the year, but its period of greatest virulence is the fair season and more especially the dry hot months of March, April and May.

During the year the incidence of disease was heaviest in Bombay City, the Western, Central and Southern Registration Districts and in two Collectorates of Sind. Gujarát and the greater part of Sind were practically free from small-pox. More than 61 per cent. of the mortality was recorded in towns, of which Bombay City contributed 40 per cent. Of the total number of deaths from small-pox, 666 were of children under one year of age, and 900 of children between the ages of one and ten years. All the former, with the exception of the very young, and most of the latter should have been fully protected by vaccination.

The ratio of infantile protection varies from 75 to 80 per cent. of available children, calculated on recorded statistics, but this is a high figure considering the imperfect registration of births. In England and Wales for the year 1906-07 the proportion was 83·5 per cent.

No reliable information is available with regard to condition as to vaccination of persons dying from small-pox.

The preventive measures adopted were such as have been noted in previous reports, namely, to send vaccinators to the affected localities for the vaccination of all unprotected children, to encourage re-vaccination, and where necessary to add temporarily to the number of vaccinators.

The success of these measures depends on the prompt notification of outbreaks of small-pox, and unfortunately this is rarely forthcoming. It is not an uncommon occurrence for a Deputy Sanitary Commissioner to receive the first notice of an outbreak of small-pox in the monthly death returns.

Fever.

Deaths from fever.

36. During the year under report 243,372 deaths (126,099 males and 117,273 females) were recorded as due to fevers, as compared with 260,329 in 1907 and a decennial mean of 284,226.

The number of deaths from fevers since 1897 is given in the following table:—

Year.	Number of deaths from fevers.	Year.	Number of deaths from fevers.
1897	405,652	1903	259,704
1898	216,324	1904	251,330
1899	228,438	1905	245,373
1900	543,319	1906	274,653
1901	291,951	1907	260,329
1902	270,845	1908	243,372
Total ...	1,956,529	Total ...	1,534,761
Mean ...	326,088	Mean ...	255,793

Deaths by Registration Districts and Collectorates.

37. Deaths from fever by Collectorates and months are shown in Annual Form No. IX.

The fever death-rate for the Presidency fell from 14·09 in the previous year to 13·17 in 1908, against a decennial mean of 13·10.

The decrease in mortality, as compared with last year, is chiefly observed in the Collectorates of Násik, Poona, Sátára, Kánara and all Collectorates in Sind; on the other hand East and West Khándesh, Sholápur, Ratnágiri, Bijápur, Broach and the Panch Maháls reported an increased mortality.

The highest ratio per 1,000 of population (25·73) was recorded in Ahmedabad and 23·26 in Broach Collectorate. Sukkur reported a high ratio of 20·72 followed by the Panch Mahâls (19·93), Thâna (18·95) and Thar and Párkar (17·43); the lowest ratio was returned from the City of Bombay.

By Registration Districts the highest ratio (18·63) was reported from Gujarát and the lowest (8·27) from the Southern Registration District.

Deaths by months.

38. Mortality from fever was fairly well distributed during the first four and the last three months of the year. As usual, there was a decline during the monsoon months when the minimum number of deaths was recorded. The highest number of deaths (24,796) was reported in the month of November.

Malarial fevers.

39. Malarial fevers attracted much attention during the year. The Collector of Panch Mahâls reports:—"This district has always been notorious as peculiarly feverish; the whole population suffers every year and outsiders are deterred from settling by the district's evil reputation in this respect. During the last year the manganese mining community in Hálol Mahál suffered greatly and this has chiefly suggested to me that a special enquiry should be made. For the prosperity of the district is immediately connected with that of the mining and other developments taking place in Hálol," and asks if an officer of the Medical Department could be deputed to make special investigations into the subject of fever in that district. The Deputy Sanitary Commissioner, Southern Registration District, similarly suggests that a preliminary malarial survey of Kánara District should be made, more especially in view of the probable connection between malaria and on the high still-birth and infant mortality rates in certain parts of Kánara District. Government issued a short 'note on malaria' in the principal vernaculars of the Presidency "in order to bring to the notice of all and sundry in as prominent a manner as possible what can be done to prevent the people from being attacked, and what can be done to drive malaria poison from the body of one who has already been attacked by fever," and indeed, as the Civil Surgeon, Dhárwár, reports:—"So far as instructions as to the methods of preventing malaria go, nothing remains to be done, but for carrying these instructions into effect there is no personel and there are no funds. In the absence of these no measures are possible."

Of the preventive measures, quinine, its cheap and free distribution to the poor, was most generally adopted. Other measures, such as drainage of small pools of water, filling up of others with earth, etc., or treating them with kerosine oil, removal of rank vegetation from the surface of tanks and rivers were adopted in some of the districts, such as Kolába, Bijápur, Thána, Panch Mahâls, Karáchi, Hyderabad, Kaira, etc. In Kánara the District Local Board sanctioned Rs. 300 for free distribution of quinine to the poor in the malarious villages of Haliyál and Yellápur Tálukas and Supa Petha. With regard to Hyderabad (Sind) the Civil Surgeon reports:—

"The present year has been signalized by a very abnormally heavy rainfall over a large part of the district combined with an exceptionally high river. In consequence of this large tracts of country were flooded during the mosquito breeding season, and the swarms of those insects were much larger and more general than usual. Towards the end of the hot season, in September, cases of malarial fever began to occur, and during that month, October, November and the first half of December, the disease was rife all over the district, being worst as usual in the southern rice growing tracts.

In the month of July, circular memoranda on the steps to be taken to abolish, or limit as far as possible, the breeding grounds of mosquitoes near towns and villages were issued to all the Hospital Assistants in charge of Dispensaries in the district. Copies of these were also sent to the Collector of the district with a request that the Revenue Officers might be instructed to aid the Hospital Assistants in carrying them out. Hospital Assistants were also instructed to visit all schools within their reach to examine the children for signs of malarial infection and to bring all such under treatment as soon as possible. Copies of these are attached for reference.

Later, the Collector of the district was addressed with the object of providing supplies of quinine for the treatment of persons suffering from malarial fever in the more malarial parts of the district, especially those who lived at some distance from dispensaries. A large

quantity of quinine was purchased by the District Local Board and the services of three Travelling Hospital Assistants were obtained. These Hospital Assistants, supplied with small medicine chests, travelled through the southern portion of the district during part of October, November and December, and, from the reports received from them, saw a large number of cases, and their services were much appreciated by the people.

Quinine was distributed also to numerous officials of the Revenue, Educational and Police Departments as well as to selected zamindárs, for free gift to poor persons or sale to those who could afford to buy it.

It is of course difficult always to say exactly how much effect preventive measures may have had in limiting epidemics of a disease like malarial fever unless they are very extensive and very thorough, but from my former experience of "bad" fever years in this district I am certainly of opinion that this year, take it altogether, the incidence of the disease has been less and its duration shorter than we had every reason to fear and possibly this may to some extent be due to efforts made to combat it. Each year the more intelligent of the people seem to take a little more interest in preventive measures and in time no doubt this interest will further increase and some work and assistance may be expected from them."

Rainfall.

40. *January.*—Rain fell in light showers in the Deccan, Konkan and almost the whole of Gujarát and adjoining Native States, Cutch and Káthiáwár.

41. *February.*—A few drops of rain fell in some scattered stations in West Khándesh and Konkan and in Gujarát States. In Kolába, the fall was general.

March.—Rain in light to fair showers fell in parts of Deccan and Karnátak and above the ghát tálukas in Kánara. Rain was comparatively heavy in East Khándesh.

April.—Rain in light to moderately heavy showers in almost the whole of Karnátak, Kánara in the Konkan, and in Sátára and Poona in the Deccan.

May.—Rain fell over the greater part of the Karnátak, Kánara, Kolhápur and Southern Marátha States.

June.—Scattered showers were received in the Deccan, Karnátak and Gujarát, and moderately strong south-west monsoon commenced on the Konkan coast and occasioned fairly heavy rain on the littoral as far north as Bombay. The current was not sufficiently strong to cross the Sahyádris and penetrate well into the interior, and only scattered showers were received in the Deccan, Karnátak and Gujarát.

July.—The rainfall during the month was in excess of the average in the whole Presidency.

August.—The rainfall during the month was in excess of the average in the whole Presidency except Gujarát.

September.—Aggregate fall of the month was good throughout the Presidency except Khándesh, Násik and Gujarát.

October.—No rain throughout the Presidency except light rains in Konkan.

November.—Rain in light to fairly heavy showers in Konkan and Karnátak but Gujarát was entirely rainless.

December.—Practically there was no rain in the Presidency except in Bijápur.

During the first three quarters of the year the prices of food-grains were high throughout the Presidency and Sind and the grant of grain compensation was general.

Prices fell during the fourth quarter and the compensation allowance was restricted to Broach, Surat, West Khándesh, Sátára and Karáchi Collectorates.

Plague.

Deaths from plague.

41. The recorded deaths from plague numbered 27,345 of which 14,818 were males and 12,527 females, as compared with 93,609 in 1907 and a decennial mean of 125,072.

The number of deaths from plague since 1897 is as follows :—

Year.	No. of deaths from plague.	Year.	No. of deaths from plague.
1897	46,944	1903	281,269
1898	86,191	1904	223,957
1899	96,596	1905	71,363
1900	33,196	1906	51,525
1901	128,259	1907	93,609
1902	184,752	1908	27,345
Total ...	575,933	Total ...	749,068
Mean ...	95,990	Mean ...	124,845

The table shows that the number of deaths from plague in 1908 is the lowest on record since the present epidemic appeared. A reference to Annual Form No. XII will show that as compared with the mean for the previous five years the decline in plague mortality was general throughout the Presidency, including Sind, with the exception of Karáchi Collectorate. The fall in the number of deaths from plague is the most striking feature of the year's mortality statistics, and it will be noticed that it is most marked in the Collectorates of Sátára, Belgaum, Kaira and in Bombay City, which have previously suffered the most. Is the decline in these areas due to paucity of susceptible material more particularly among rats and perhaps to some extent among human beings, or is the epidemic dying out? There are circumstances connected with the epidemic of 1908 which seem to militate against the view that plague is dying out.

In the first place, wherever it has appeared, the disease has shown all its old virulence. There has been no falling off in this respect, as is usually looked for in a dying epidemic. Again a comparison with the previous year's figures shows that the incidence of plague was greater than in the previous year in some Collectorates, namely, Poona, Karáchi, Ahmednagar, Dhárwár and Sholápur. Moreover, in the last three named Collectorates the incidence of plague has, for the past few years, been very slight, but during the year under report the disease showed signs of revival.

42. The number of towns and villages affected fell from 2,067 in 1907 to 906 in the year under report. Of the 65 towns and cantonments 47 or 72 per cent. were affected, the towns of Dhárwár, Karáchi, Nasirabad, Belgaum, Poona, Kalyán and the Cantonments of Poona and Kirkee suffering severely. While in the remaining towns the death-rate from plague was under 10 per 1,000 of population.

Deaths by months.

43. There was a gradual increase in the number of deaths from January to April followed by a rapid fall to a minimum in June and July, after which there was an equally sudden rise to a maximum in November.

May, June and July are usually the months of least prevalence in most places with the exception of Bombay and Karáchi Cities, where the epidemic, at its height in March, April and May, declines to a minimum towards the end of the year.

Plague preventive measures.

44. The measures adopted for the prevention of plague were general and special. Under the former head are included such action as is taken by local authorities wherever plague appears. Evacuation of infected localities is encouraged and inoculation with anti-plague serum is offered to all. The means of escape from plague are put within the reach of every one in plague-stricken localities, the acceptance or not of which is left to the people's choice. In the Collectorates of Belgaum,

Sátára, Thána, Surat and Kairá certain areas were selected for special operations, these areas being notorious for the persistant recurrence of plague.

It was intended to demonstrate in a few chosen villages the proper methods of carrying out evacuation, inoculation and rat destruction, and the benefits to be derived from these measures. At the same time and in accordance with the wishes of Government, inquiries were made, in the first four of the Collectorates mentioned above, into the origin of plague in the localities which were so constantly attacked, with a view to proving or disproving the theory of endemic or enzootic centres of plague being the cause of recrudescence. Special Medical Officers with the requisite subordinate staff were appointed for each Collectorate, and in Belgaum, Sátára and Kaira Collectorates work was in progress during the greater part of the year, and for a shorter time in Surat and Thána Collectorates.

Full reports of the work done in these Collectorates and the results attained have already been submitted to Government. It may be stated here that the light incidence of plague during the year prevented any complete demonstrations of anti-plague measures in the selected localities. Evacuation and inoculation cannot be suggested in the absence of plague, but rat destruction can be carried on in anticipation, and there was sufficient plague to show in a few places that a diminution in the rat population is sufficient to prevent the spread of plague in a village, although surrounded by infected neighbours. As regards the origin of plague, sufficient evidence has not yet been collected, but reinfection from without appears to be the usual source, although there is evidence to show that plague may persist during the season of general abatement, to become a source of infection when the usual epidemic season comes round. The cases are few and pass unnoticed by village officials.

Inoculation.

45. This plague preventive measure has not improved in the estimation of the general public, notwithstanding that the number of operations was greater than during the previous year. During the year under report 50,408 persons were inoculated, against 38,514 in the previous year, of whom 49,645 belong to British territory and 763 to Native States. Of the total number, 27,618 operations or 55 per cent. were performed in Poona District, 5,804 in Sátára, 3,657 in Dhárwár, 3,141 in Karáchi, 983 in Ahmedabad, 852 in Kaira, 647 in Belgaum and 503 in Bijápur District, while the number of inoculations performed in other districts was below 200. The maximum number of inoculators employed at one time was 18. In the chief plague infected towns the number of inoculations performed was in Bombay 5,956, Karáchi 3,141, Poona 16,570, Poona Cantonment 7,583, Belgaum 217, Dhárwár 2,578, Hubli 900, Sátára 2,269.

46. Among the inoculated 65 cases of plague with 35 deaths were reported of which 38 cases with 20 deaths occurred in the Poona District; 14 cases with 8 deaths in Dhárwár District; 5 cases with 3 deaths in Ahmedabad District, 7 cases with 3 deaths in Karáchi Town, and one case with one death in Belgaum District.

In the case of all the deaths in Poona and Dhárwár Collectorates, of one of the three deaths in Karáchi, of two out of the three deaths in the Ahmedabad and of the single death in Belgaum Collectorate, the disease became manifest so soon after inoculation as to warrant the belief that plague in its incubation stage was existent at the time of operation. In Karáchi two fatal cases were reported three and four months after inoculation, but no details with regard to these cases have been furnished by the Health Officer.

From Parántij Táluka of Ahmedabad District one fatal case of plague after inoculation was reported and on investigation it was ascertained that the person had been inoculated two years previously.

Dysentery and Diarrhœa.

Deaths from Dysentery and Diarrhœa.

47. During the year 40,781 deaths (22,047 males and 18,734 females) were ascribed to Dysentery and Diarrhœa against 53,708 in the previous year and 75,649 the decennial mean. These figures correspond to a ratio of 2·21 per 1,000 of population compared with 2·91 for the previous year.

48. The number of deaths from Dysentery and Diarrhœa since 1897 is as follows:—

Year.	Number of deaths from Dysentery and Diarrhœa.	Year.	Number of deaths from Dysentery and Diarrhœa.
1897 ...	85,966	1903 ...	55,443
1898 ...	56,789	1904 ...	61,470
1899 ...	74,736	1905 ...	55,488
1900 ...	218,243	1906 ...	61,736
1901 ...	60,198	1907 ...	53,708
1902 ...	58,682	1908 ...	40,781
Total ...	554,614	Total ...	328,626
Mean ...	92,436	Mean ...	54,771

Deaths by Collectorates.

49. Deaths from Dysentery and Diarrhœa by months are given in annual form No. X.

These diseases were less prevalent in all Collectorates excepting Bijápur, Hyderabad and the Collectorates of Gujarát, although the increase in none of these is very marked. The greatest fall in recorded deaths from these diseases, compared with the previous year, is shown in East and West Khándesh, Ahmednagar, Poona and Belgaum Districts.

A noticeable feature of the table is the high mortality from Dysentery and Diarrhœa registered in East and West Khándesh, but it is apparent that the recorded mortality for the Presidency as a whole from these diseases is below the mark, seeing that 67 per cent. of the towns and villages recorded no deaths from them.

Injuries.

Deaths from Injuries.

50. There were 7,109 deaths reported as due to Injuries, of which 4,095 were males and 3,014 females. The figures for the previous year were 6,799, and 7,008 as the mean for the previous ten years.

The number of deaths recorded under the heading "Injuries" since 1897 is as follows:—

Year.	Number of deaths from Injuries.	Year.	Number of deaths from Injuries.
1897 ...	6,907	1903 ...	6,693
1898 ...	6,984	1904 ...	6,333
1899 ...	7,102	1905 ...	6,586
1900 ...	8,224	1906 ...	6,830
1901 ...	7,092	1907 ...	6,799
1902 ...	7,434	1908 ...	7,109
Total ...	43,743	Total ...	40,350
Mean ...	7,290	Mean ...	6,725

Deaths from Injuries in 1907 and 1908 by sexes.

The deaths by sexes arranged under the various heads classed as Injuries, and compared with those of the previous year, are given in the following table :—

Causes.	1907.			1908.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,123	1,540	2,663	1,250	1,504	2,754
Poisoning	81	45	126	83	39	122
Hanging	112	83	195	114	74	188
Wounding	545	243	788	588	304	892
Wild beasts	50	19	69	32	12	44
Snake-bite	792	447	1,239	808	484	1,292
Railway	59	6	65	67	13	80
Other causes	1,367	587	1,654	1,154	583	1,737
Total ...	3,829	2,970	6,799	4,095	3,014	7,109

The increased mortality falls chiefly under the heads of Drowning, Wounding and Other causes. In Sind there was an increase of 188 deaths from "Drowning" due to a cyclonic storm which visited some parts of that province in July, when 61 deaths were reported from Tatta Táluka alone as due to "Drowning."

Deaths from Snake-bite by Collectorates.

51. Under the head of Snake-bite there was an increase of 53 over the previous year's figures. As usual the returns from Ratnágiri Collectorate, 230 deaths, far exceed those of any other Collectorate; next in order come Hyderabad (105), Thána (89) and Kaira (85). The lowest figures being 4 each from Sholápur and Bombay City. In Belgaum Collectorate efforts are being made by the Collector to reduce this mortality by distributing Sir Lander Brunton's lancets. Last year a dozen of these lancets were purchased and distributed among the Deputy Sanitary Commissioners for use by picked Inspectors, but no reports have yet been received of their use.

Details of Injuries.

52. Of 2,754 deaths from "Drowning" 256 were 'suicidal,' 2,376 'accidental' and 122 were returned as otherwise; the latter heading signifying that at the date of submission of the return no decision had been arrived at as to whether the deaths were 'suicidal' or 'accidental.' Of the 2,376 deaths from accidental drowning 1,283 were reported as having occurred in wells, and two-thirds were females. The highest returns came from Belgaum Collectorate (187), Sátára (175), Násik (86), Dhárwár (84), Bijápur (81) and Ahmednagar (71).

There is no falling off in the number of deaths from accidental drowning in wells, a heading which could and should be eliminated from the returns.

Out of 543 suicidal deaths 262 were males and 281 females. Drowning and hanging are the chief methods favoured in the commission of suicide.

Respiratory Diseases.

Deaths from Respiratory Diseases.

53. The returns for Respiratory Diseases show 54,671 deaths, 28,824 males and 25,847 females, against 58,068 in the previous year and a quinquennial mean of 58,430.

The number of deaths registered from these causes since 1902 is given below :—

Year.	Number of deaths from Respiratory Diseases.	Year.	Number of deaths from Respiratory Diseases.
1902 ...	59,379	1906 ...	60,615
1903 ...	59,349	1907 ...	58,068
1904 ...	59,579	1908 ...	54,671
1905 ...	54,537		
Total ...	232,844	Total ...	173,354
Mean ...	58,211	Mean ...	57,785

Deaths by Registration Districts, Collectorates and Towns.

54. Deaths from Respiratory diseases by months are shown in Annual Form No. XI.

There were only slight variations in the mortality from these causes as compared with the figures of the previous years. The ratio per mille for the whole Presidency was 2·96, the highest ratio (6·14) being registered in Gujarát, and the lowest (·41) in Sind.

Deaths from Respiratory diseases by Districts and Towns are given in Annual Form No. VI, column 9. As reported by districts the total deaths from this cause amounted to 2·09 per 1,000 of population, whilst the ratio in towns was 7·96 against 8·48 in 1907. In Ahmednagar town the high ratio of 19·76 was registered, more than half the number of deaths being attributed to these diseases. With the exception of the Panch Mahâls, all the towns in Gujarát recorded high ratios.

Other Causes.

Deaths from 'Other Causes.'

55. The recorded deaths under this heading numbered 124,275, of which 63,430 were males and 60,845 females as compared with 124,575 in the previous year and a decennial mean of 177,691.

The number of deaths recorded under 'Other Causes' since 1897 is as follows :—

Year.	Number of deaths from 'Other Causes.'	Year.	Number of deaths from 'Other Causes.'
1897 ...	143,503	1903 ...	144,510
1898 ...	176,335	1904 ...	144,800
1899 ...	254,872	1905 ...	132,666
1900 ...	342,027	1906 ...	142,478
1901 ...	179,694	1907 ...	124,575
1902 ...	134,952	1908 ...	124,275
Total ...	1,231,383	Total ...	813,304
Mean ...	205,230	Mean ...	135,551

Deaths by Registration Districts and Collectorates.

56. The percentage of deaths recorded from 'Other Causes' to total deaths for the Presidency was 24·76 with percentages varying from 42·49 in the Southern Registration District to 7·25 in Sind.

The same variations are noticeable in the individual Collectorates, excluding the notoriously malarial districts and one or two others in which registration receives more attention.

It may be noticed that the ratio of mortality under 'Other Causes' varies inversely with that for 'fever', being an index of the diagnostic abilities of the village authorities, more especially in the case of child mortality.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

57. This section has been omitted from this report and appears separately.

SECTION VIII.

SANITARY WORKS—MILITARY.

58. No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

59. During the year ending 31st March 1908 there were 158 Municipalities in the Mofussil with a population of 2,349,138 souls. The total net income of these municipalities amounted to Rs. 79,92,502-3-8, of which sum Rs. 17,35,771-9-8 were expended on improving water-supply, drainage and conservancy within Municipal limits. The incidence of taxation and income per head of population have increased from Rs. 1-14-0 to Rs. 1-14-9 and from Rs. 2-9-8 to Rs. 2-12-10 respectively.

Andheri, Santa-Cruz, Ghat-Kopar and Kirol in the Northern Division, Chálisgaon, Manmád and Mádha in the Central Division, and Bail-Hongal and Dápoli in the Southern Division have been declared Notified Areas.

There were 25 District Local Boards, with 211 Táluka Local Boards. The entire income of these Boards during the year ending 31st March 1908 amounted to Rs. 64,06,055-3-5, and out of this sum Rs. 3,75,426-3-2 were expended on water-supply and drainage.

60. The Bombay Village Sanitation Act, 1889, has been introduced into 265 villages against 243 up to the end of last year.

The duties of a Sanitary Board or Committee comprise all that pertains to public health and convenience, and as these bodies are not burdened with all the extraneous expenditure of a Municipality, their funds, which are largely made up of voluntary contributions, can be devoted to these purposes.

As regards the actual working of these institutions the Deputy Sanitary Commissioner, Western Registration District, states that:—"The Village Sanitation Act has had moderate success. Even the small financial demand it makes in the shape of taxes proved a burden too great to be borne by some of the small towns which had been given Sanitary Committees in the Násik District during the hard times of recent years, and in those they were abolished on the recommendation of Mr. Moore, the late Collector. On the whole, however, and especially considering the educative influence of such as are successful, those bodies deserve to be encouraged as much as possible; and that not only by grants of money but by the control and advice of those whose experience of sanitation is wider than that possible to the elders of a small Táluka headquarter town."

The Deputy Sanitary Commissioner, Central Registration District, reports that:—"Although one may say that almost without exception these Committees still leave much to be desired from a sanitary point of view, they are certainly a step in the right direction as, prior to the institution of these bodies, sanitation and even ordinary cleanliness were entirely neglected except in Municipal Towns. The difficulty, however, in every instance is to collect sufficient funds to carry out improvements or even to maintain a small staff of sweepers."

"In the places referred to (Ahmednagar District), fairly successful attempts have been made to prevent the pollution of wells and other sources of drinking water."

The Deputy Sanitary Commissioner, Gujarát Registration District, writes:—"Personally I am of opinion that the sanitary condition of these villages shows no improvement over that of the villages in which the Act is not in force, and that an equal amount of apathy and indifference to sanitary improvements exists in both classes of villages. The matter has been referred to the Inspectors of Sanitation and Vaccination and they hold the opinion that a certain amount of attention is given to sanitation in those villages in which the Act is in force."

The Deputy Sanitary Commissioner, Sind Registration District, states that:—"The result does not appear to be satisfactory." He could detect little or no difference between those villages with a Sanitary Committee and those without. All were equally insanitary and dirty.

With a view to furnishing the information called for in Government Memorandum No. 7077, dated $\frac{28\text{-}11\text{-}1908}{15\text{-}12\text{-}1908}$, a reference was made to all the Collectors asking them for a detailed account of the work of the Village Sanitary Boards and Committees in their districts. More or less full details have been received from twelve Collectors concerning 110 Sanitary Committees, but few opinions have been expressed as to the working or as to the value of these committees.

The Collector of Násik notes:—"From the reports of the Sub-Divisional Officers concerned, it appears that the Committes at Málegaon Camp, Pimpalgaon Baswant, Nandgaon, Kalwan, and Satána are working pretty well. Those at Bhagur and Deoláli are not working satisfactorily, since no rules have yet been framed under section 11 of the Act. The same may be said of Chándor Committee. Those at Niphád, Lásalgaon and Dindori exist in name only. The Sub-Divisional Officers are now trying to put these Committees in proper working order."

The Collector of Karáchi states:—"The Committees take some trouble to keep the streets of the villages clean, to dispose of night-soil, and remove jungle growth, etc.; some of them carry out local improvements to wells." He concludes by quoting the following remarks from a report by the Tatta Sub-Divisional Officer, which are applicable to many of these Committees.

"The Committees, however, are thoroughly anæmic institutions, which no amount of official activity can galvanize into healthy life. Collective sanitation does not appeal to the people, and left to themselves they will do nothing.

"There are therefore no other results to report than that sweepers are engaged to keep the village clean, and that they are usually active when it is known that an officer is expected to camp at the village."

The Collector of Sukkur writes:—"Progress has been made in keeping streets and lanes clean, and it is proposed to utilize the services of some of the Committees in laying out new building sites, and alleviating the congestion of the present sites."

The following statement shows roughly the financial position as a whole of the Sanitary Committees in various Districts, during the year 1908-1909:—

Districts.	Number of Committees.	Income including balances.	Expenditure.	Closing balance.
		Rs.	Rs.	Rs.
Násik	6	10,808	4,199	6,609
Thána	3	1,536	1,372	164
Bijápur	31	8,208	7,422	786
Ahmednagar	11	6,460	5,352	1,108
Sholápur	1	900	530	370
Ratnágiri	3	1,820	1,746	74
Surat	7	8,624	6,151	2,473
Broach	11	4,482	2,415	2,067
Karáchi	23	8,896	4,296	4,600
Thar and Párkar	19	11,275	7,321	3,954
Upper Sind Frontier	2	2,217	1,786	431

On the whole, credit balances are shown in each district although individual Sanitary Committees vary considerably.

There appear to be two types of committees, those which can barely raise enough money to meet recurrent expenditure, and those which have money in abundance, but will not spend it.

A type of the first is Chikodi (Belgaum), a Head-quarter town of over 8,000 inhabitants. The average dependable income amounts to Rs. 1,350, while recurring expenditure swallows up close on Rs. 1,200.

An extreme instance of the second class is Párdi (Surat) with an income in 1908-1909 of Rs. 1,160, expenditure Rs. 901 including an item of Rs. 236 for road repairs, and closing balance of Rs. 1,863.

The income of Sanitary Committees is contributed for a specific purpose, namely, for the benefit of public health and convenience, and every anna should be spent on these objects. Small wonder that voluntary subscriptions are difficult to get, when so many large cash balances are maintained.

The idea of asking people to contribute voluntarily for an object the benefits of which they cannot appreciate, an dwhich moreover a majority of them thoroughly dislike, is somewhat unreasonable. An assured and sufficient income is the first necessity for the success of a Sanitary Committee and this can only be obtained by substituting leviable rates for voluntary contributions.

In the second place "must" should take the place of "may" in the Act; the Committee, in framing their rules, in appointing a sanitary staff, and in projecting new works, should be compelled to act in consultation with officers of the Engineering and Sanitary Departments.

61. The number of selected villages in which the "Village Sanitary Inspection Book" has been introduced stands at 3,334. During the year under report 543 entries have been made in these books by officers of the Sanitary Department, and the total entries made by Officers of the Sanitary Department since 1898 number 4,635.

Government have now under consideration certain questions relating to the distribution of the Village Sanitary Book, and the best means of making it more useful.

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

62. The office of the Sanitary Commissioner was held by Lieut.-Colonel T. E. Dyson, I.M.S., from 1st January to 27th March and from 22nd November to the end of the year. During the period of his leave from 28th March to 21st November 1908 Lieut.-Colonel H. C. L. Arnim, I.M.S., acted as Sanitary Commissioner.

63. During the year the following Collectorates were visited :—Násik, Sátára, Belgaum, Dhárwár, Bombay City, Ahmedabad, Kaira, Surat, Thána and Sholápur.

64. The tours of the Deputy Sanitary Commissioners are described in the report on Vaccination.

T. E. DYSON,
M.B., D.P.H., Lieut.-Col., I.M.S.,
Sanitary Commissioner.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE BOMBAY PRESIDENCY FOR THE YEAR 1908.

The Sanitary Board was constituted as under during the year :—

President.

Surgeon-General J. P. Greany, M.D., I. M. S., Surgeon-General with the Government of Bombay up to 1st April 1908.

Colonel James McCloghry, F.R.C.S.I., I.M.S., Acting Surgeon-General with the Government of Bombay from 1st April to end of year.

Members.

W. Doderet, Esq., I.C.S., Commissioner, Central Division up to 14th June 1908.

The Honourable Mr. W. T. Morrison, I.C.S., Commissioner, Central Division from 14th June to end of year.

The Honourable Mr. W. L. S L. Cameron, Assoc. M. Inst. C.E., Chief Engineer, Public Works Department.

Lieutenant-Colonel T. E. Dyson, M.B., D.P.H., I.M.S., Sanitary Commissioner for the Government of Bombay from 1st January to 27th March and again from 22nd November to end of year.

Lieutenant-Colonel H. C. L. Arnim, D.P.H, I.M.S., Acting Sanitary Commissioner for the Government of Bombay from 28th March to 21st November 1908.

M. Visvesvaraya, Esq., B.A., L.C.E., M.I.C.E., Sanitary Engineer and Secretary up to 27th May 1908.

F. L. Sprott, Esq., C.E., Sanitary Engineer and Secretary from 28th May to end of year.

2. *Meetings.*—Three meetings of the Board were held during the year on January 29th, July 6th and October 8th.

At these meetings, among other matters, schemes for improvements to the Pandharpur watersupply and for providing watersupplies to the towns of Dhárwár, Násik and Hubli were dealt with.

Questions in connection with watersupplies for the towns of Ahmednagar, Bijápur, Broach and Bulsár, the watersupply and drainage of Bándra and Sholápur and the sources of supply to be adopted for Broach and other towns in Gujarát generally were also considered.

3. Works in progress during the year :—

(1) *Improvements to Pandharpur Watersupply.*—The project for this work referred to in last year's report was completed during the year, and was sanctioned by Government. A grant of Rs. 2,00,000 was given by Government late in the year and the work was commenced just before the close of the year, the expenditure of the year being Rs. 3,614.

The project provides for pumping from wells in the bed of the River Bhima, ¼ mile above the town, to a service reservoir on high ground whence the town will be supplied by gravitation. The distribution will be by cisterns and stand posts, the existing system being made use of.

(2) *Pandharpur Drainage.*—This work referred to in last year's report was continued, as money was available, under Municipal Agency, and a portion of the riverside collecting drain, 2,500 feet in length, and some minor improvements to the old side drains were carried out during the year at a cost of Rs. 24,411.

(3) *Dhulia Watersupply.*—The filter beds the construction of which was commenced in the last year were nearly completed during the year under report, the total outlay up to the end of the year, excluding charges for Establishment and Tools and Plant, amounting to Rs. 31,923 against the estimate of Rs. 38,175.

(4) *Jalgaon Watersupply.*—The Masonry Weir No. 2 for the Feeder Channel was completed during the year at a cost of Rs. 2,300.

(5) *Ahmedabad Watersupply.*—The existing supply wells and pumping machinery having proved insufficient, though worked on the average 17 hours per day, the Municipality resolved to provide 4 new wells and to add largely to the machinery. These works

including additions to the drainage system are estimated to cost approximately Rs. 3,50,000 and Government has sanctioned the raising of a loan for the purpose in the local market. In the mean time as it was necessary to sink the wells before the monsoon this work was completed during the year at a cost of Rs. 26,000 from other funds made available.

(6) *Ahmedabad Drainage.*—Some progress was made during the year with connecting up the densely populated portion of the city with the drainage system. The number of house connections was increased from 15,957 to 16,290 at a cost of Rs. 3,835, about half this portion being still unconnected. The capital cost of the drainage works now amounts to Rs. 14,90,000, the income derived from the drainage tax being Rs. 46,626 and the maintenance charges Rs. 5,800 during the year. About one-third of the sewage farm of 353 acres was cultivated but not wholly irrigated with sewage. The maintenance of the farm cost Rs. 6,413 and it yielded a revenue of Rs. 12,765 during the year.

(7) *Karáchi Watersupply.*—The distribution system was improved at a cost of Rs. 60,927 during the year.

(8) *Karáchi Drainage.*—The extension of the Shone system referred to in previous reports was continued. Gravitating sewers connecting with the ejectors in the Ranchore Lines and the Jail Quarters were completed at a cost of Rs. 1,50,950. The total expenditure on the extension of the drainage system to the end of the year amounted to Rs. 7,84,192 and the total expenditure on the drainage system from the commencement to Rs. 15,07,135.

(9) *Hyderabad Drainage.*—A scheme was prepared by the Municipality for connecting the two outfalls and disposal of the sewage. A sum of Rs. 50,000 was allotted for this work but it was not commenced as some alterations were suggested. A light tramway was however purchased for use on the proposed reclamation. Land was purchased for a sewage farm and, on this and the construction of a few new drains and repairs to old ones a sum of Rs. 23,697 was expended.

(10) *Surat Watersupply.*—Progress was made with the installation of new engines and boilers and the construction of the houses for them by the Municipality, the expenditure of the year on these heads amounting to Rs. 38,520.

4. Works sanctioned during the year but not commenced :—

(1) *Dhárwár Watersupply.*—The project referred to in last year's report was sanctioned by Government. This project provides for improvements to the tank, for pumping from the tank to a service reservoir on high ground and for distribution from this reservoir to stand posts and cattle troughs where required.

(2) *Hubli Watersupply.*—The estimates for urgent improvements and for further extensions and improvements amounting to Rs. 4,08,000 referred to in last year's report were completed and sanctioned by Government. A third estimate for increasing the catchment area of the storage reservoir is under consideration by the local Executive Engineer.

5. Government has been pleased to give during the year the following grants for sanitary works in the Presidency :—

Name of work.	Amount of grant-in-aid.	Authority of Government Resolution.
	Rs.	
(1) Boha-Astami watersupply ...	6,167	Financial Department, No. 2619 of 17th June 1908.
(2) Pandharpur watersupply ...	2,00,000	General Department, No. 5317 of 27th August 1908.
(3) Sanitary Improvements for Ahmedabad...	50,000	Do. do.
(4) Do. Surat ...	50,000	Do. do.
(5) Do. Belgaum ...	50,000	Do. do.
(6) Do. Hubli ...	50,000	Do. do.
(7) Dhárwár watersupply ...	1,00,000	General Department, No. 7171 of 22nd December 1908.
(8) Bijápur watersupply ...	2,00,000	General Department, No. 7561 of 22nd December 1908.

They have also promised to give loans in addition for the construction of the works noted in (1), (7) and (8) to the extent of Rs. 8,000, 2,00,000 and 1,50,000 respectively.

Government have also been pleased to accord their sanction to the proposal of the Local Boards of Dhárwár and Bijápur to contribute Rs. 50,000 for the watersupply of their respective head-quarter stations.

6. The following projects for sanitary works were under preparation during the year :—

(1) *Násik Watersupply.*—A complete project was drawn up by the Executive Engineer, Násik District under the advice of the Sanitary Engineer and was submitted to Government towards the close of the year. It is awaiting sanction pending decision of the question of the supply to the masonry cisterns in the bed of the river opposite to the Násik temples.

(2) *Ahmednagar Watersupply and Bhusával Drainage.*—Complete projects were prepared and are under consideration by the Municipalities concerned.

(3) *Hyderabad Watersupply.*—A project for improving the watersupply of Hyderabad, Sind, was under preparation by the Executive Engineer, Hyderabad Canals in accordance with the rough proposals formulated by the Sanitary Engineer.

(4) *Sukkur Watersupply.*—A project was drawn up by the Executive Engineer, Shikárpur Canals, with the advice of the Sanitary Engineer and is now under consideration by the Municipality.

In addition, projects were under preparation in the Sanitary Engineer's Office for watersupplies for the towns of Bijápur, Broach, Bulsár, Dholka, Godhra, Thána and Viramgaon.

7. *Poona City Drainage and Watersupply.*—The consideration of the Poona City drainage and water-supply schemes referred to in paragraph 6 of the annual report for the year 1906 has so far advanced that the Government of Bombay has submitted to the Government of India definite proposals for financing them, *vide* Government Resolution, General Department, No. 7223, dated 5th December 1908 and it is most probable that the schemes will be put in hand in the year 1909.

8. *Sanitary Engineer.*—The Sanitary Engineer toured round almost the whole of the Presidency during the year, inspecting works in progress or under contemplation and giving advice locally or important matters where the local authorities seemed anxious to effect improvements.

Under Government orders he visited Baroda to give advice about the "Countess of Dufferin Hospital" there. The Sángli water-supply project was reviewed by him and submitted to Government. He also gave a course of lectures on Sanitary Engineering to the students of the College of Science.

H. KEMBALL, C.E.,
Secretary to the Sanitary Board, Bombay Presidency.

Poona, 25th May 1909.

APPENDIX II*a*.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31st DECEMBER 1908.

I.—Summary.

The inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the harbour and docks during the year ending 31st December 1908 is given in the following summary:—

2,427 vessels of all sorts with 235,066 crew and passengers were examined as against 11,708 vessels with 894,848 crew and passengers during the preceding year. This considerable reduction in the number of crew and passengers inspected was owing to the abolition of the medical inspection of vessels leaving for coast ports in the Bombay Presidency as per Government Notification, General Department (Plague), No. 113-P. of 18th January 1908, and also of the vessels, their crew and passengers which were bound for Indian ports including Burma in accordance with Government Resolution, General Department (Plague), No. 1758-P. of 19th October 1908.

The clothing, bedding and other articles of 91,340 crew and passengers of outgoing and incoming vessels and of crew of vessels lying in the Port were disinfected. Of these 72,098 were Asiatic and African members of crew, third class or deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India. 18,027 were crew, pilgrims and passengers who arrived by vessels on which cases of infectious diseases had occurred. The remaining 1,215 were crew of vessels on which cases of infectious diseases had occurred during their stay in the Port.

Forty-four vessels on which cases of infectious diseases had occurred were disinfected. 21 vessels which carried pilgrims to Jeddah, were thoroughly cleansed and freed from rats and cockroaches by means of sulphur dioxide gas generated in a Clayton apparatus. In all 65 vessels of all sorts were disinfected. 343 persons among whom cases of small-pox had occurred were vaccinated.

At the outward and inward inspections, and on board vessels lying in the harbour or docks 9 cases of plague, 3 cases of cholera, 123 cases of small-pox, 17 cases of measles, 9 cases of chickenpox, 1 case of jigger, and 3 cases of scarlatina were detected.

II.—Outgoing Vessels.

2. The medical examination of all outgoing vessels, their crews and passengers, and the disinfection of the clothing and bedding of all Asiatic and African members of the crew, of all passengers travelling third class who were not provided with berth accommodation, of fourth class and deck passengers, and of all Asiatic and African servants who sailed on vessels bound for ports out of India were carried out immediately before they left the Port of Bombay.

3. The medical inspection of vessels, their crews and passengers proceeding to ports in India including Burma was abolished in accordance with Government Resolution, General Department (Plague), No. 1758-P., dated 19th November 1908.

4. During the year under report 2,299 outward bound vessels (including Native sailing craft) with 98,097 crew and 93,587 passengers or a total of 191,684 persons were inspected as against 11,542 vessels with 231,803 crew and 610,098 passengers or a total of 841,901 persons during the preceding year.

5. Of the 2,299 outgoing vessels, 319 vessels with 36,937 crew and 44,387 passengers left for Aden or ports in the Red Sea or Europe, 433 vessels with 30,932 crew and 10,986 passengers for other ports out of India and the remaining 1,547 vessels with 30,228 crew and 58,224 passengers for Indian ports and Burma.

6. The bedding, boxes and suspected articles of clothing, etc., of 40,065 Asiatic and African members of crew and of 29,369 third, fourth class and deck passengers, and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the clothing, bedding and other effects of 2,445 crew and 219 passengers who sailed in Native craft for ports out of India were also disinfected. Thus the total number of outward bound crew and passengers whose clothing, bedding, etc., were disinfected comes to 72,098 during the year under report as against 83,517 during the year 1907.

7. Disinfection of the clothing and bedding of the crew and passengers of some vessels which proceeded to ports out of India *vid* Karáchi was not carried out at Bombay as the Agents preferred to have the disinfection done at Karáchi while the ships were loading cargo there.

8. The S. S. "Shah Noor," S. S. "Budrie," S. S. "Zibenghla," S. S. "Chanda," S. S. "City of Calcutta," S.S. "City of London," S.S. "Imani," S. S. "Caledonia," S. S. "Persia,"

S. S. "Ville de la Ciotat," and S. S. "Olympia" had cases of infectious diseases among their crews or passengers within 12 days prior to their departure from this Port. The Bills of Health granted to these vessels mentioned the illness which occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of the disease.

9. Whenever plague developed among members of crews or passengers who were not allowed to sail on vessels for ports out of India, Government were informed in each case of the fact in order that the authorities at the vessel's next port of call might be made acquainted of the occurrence by wire. When a plague case occurred among those who were prevented from sailing on vessels bound for Indian ports the Port Health Officer communicated the fact to the authorities at the next port at which each such vessel was intended to call.

III.—Incoming Vessels.

10. In accordance with the rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, *vide* Notification, General Department (Plague), No. 1645-P. dated the 12th March 1900, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P., dated the 31st March 1900, medical inspection and disinfection of vessels which were actually infected or suspected to be infected with plague, yellow fever, cholera, smallpox, chickenpox, measles or scarlatina were carried out. All vessels which arrived from East African Ports were also inspected for the detection of cases of jigger or sleeping sickness.

11. One hundred and thirteen incoming vessels of various kinds with a crew of 9,706 persons and 33,676 passengers were inspected during the year. Of the 113 vessels inspected 29 were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. Five Troopships arrived with 1,252 crew and 5,704 passengers, among whom 12 cases of measles and 3 cases of scarlatina had occurred. The clothing and bedding of the patients as well as those of the crew were thoroughly disinfected. One vessel arrived from East African Ports with 67 crew and 435 passengers, among whom one case of jigger was detected. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. Eighteen vessels arrived from Jeddah with 1,660 crew and 15,780 pilgrims on which 6 cases of plague, 113 cases of smallpox, 1 case of measles and 2 cases of chickenpox occurred during the voyage. The effects of 14,599 pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their desinations upcountry. Three hundred and forty-three persons who were willing to get themselves vaccinated were vaccinated. The remaining 5 vessels with 1,039 crew and 687 passengers had on board on arrival or during the voyage one case of cholera, one case of smallpox, three cases of measles and one case of chickenpox. The vessels and the kit of the persons among whom the cases had occurred were disinfected.

IV.—Infectious Diseases on Vessels in the Harbour and Docks.

12. During the year 15 vessels, including Native sailing craft, which were lying in the Victoria and Prince's Docks or off the various bunders in the harbour had on board 3 cases of plague, 2 cases of cholera, 8 cases of smallpox and 1 case of measles. The clothing and bedding of 1,215 crew of these vessels were disinfected. All these vessels and those mentioned in paragraph 10 of this report were thoroughly disinfected in accordance with the regulations issued under the Epidemic Diseases and the Indian Ports Acts. The particulars of the cases above referred to are shewn in Statement No. 2, which is appended to this report.

V.—Port Observation Camp.

13. The camp is constructed of timber and corrugated iron sheets and is situated in Fort Street. Only a few persons out of the total number of rejections at the outward inspections elected to be sent to the camp. Those sent were detained until their temperatures fell to normal or until it was certain that the symptoms from which they were suffering were not due to plague.

VI.—Disinfection of Ships.

14. During the year under report 65 vessels of all sorts were disinfected under the personal supervision of the Port Health Officer or of one of the Port Health Staff. Of the 65 vessels 21 were outward bound pilgrim ships.

15. The vessels on which cases of plague occurred had their holds thoroughly fumigated by the Clayton apparatus.

16. The vessels on which cases of cholera had occurred had the drinking water on board discharged into the sea. The water tanks were thoroughly disinfected inside with a solution of Permanganate of Potash before they were refilled with a fresh supply of drinking water.

17. The Port Disinfection Station received, on every Monday, clothing and bedding from various hospitals for disinfection. Two hundred and eighty-eight bundles containing such clothing and bedding were disinfected.

VII.—General Health of the Shipping.

18. During the year 1,229 persons connected with the shipping were admitted into the various hospitals in the city. The Saint George's Hospital admitted 726 European patients, of whom 34 died, 672 were discharged cured and 20 remained under treatment after the 1st January 1909. The Jamsetjee Jijibhoy Hospital admitted 116 Native patients of whom 22 died, and the Gocouldas Tejpal Hospital 387 Natives of whom 18 died.

19. No deaths occurred in connection with the cleansing of bilges of ships during the year. There were 169 accidents on board of vessels which were lying in the harbour or docks.

VIII.—Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

20. Under Government of India's Notification, Home Department (Sanitary), No. 1606, dated 13th July 1908, the Port of Bombay was opened for the embarkation of pilgrims making pilgrimage to Mecca *vid* Jeddah. Before the pilgrims embarked the ships were thoroughly cleansed and freed from rats by means of the Clayton process under the personal direction of the Port Health Officer. The pilgrims were subjected to medical inspection and their clothing and bedding to thorough disinfection before they were allowed to embark on the ships by which they intended to sail for Jeddah.

21. The names of the ships, the number of pilgrims carried by them and the dates on which they left Bombay for Jeddah are mentioned below:—

	Name of vessel.	Number of pilgrims.	Date of departure.
1.	S. S. "Monsoorie"	843	7th September 1908.
2	S. S. "Rahmani"	444	13th do.
3.	S. S. "Budrie"	896	22nd do.
4.	S. S. "Islami"	814	26th do.
5.	S. S. "Mozaffari"	603	3rd October 1908.
6.	S. S. "Majidi"	782	12th do.
7.	S. S. "Shah Allum"	671	18th do.
8.	S. S. "Firoozi"	812	21st do.
9.	S. S. "Monsoorie"	864	1st November 1908.
10.	S. S. "Rahmani"	793	7th do.
11.	S. S. "Xema"	611	12th do.
12.	S. S. "Alavi"	856	13th do.
13.	S. S. "Islami"	826	17th do.
14.	S. S. "Budrie"	895	18th do.
15.	S. S. "Haidari"	596	21st do.
16.	S. S. "Shah Jehan"	1,081	23rd do.
17.	S. S. "Shah Allum"	807	25th do.
18.	S. S. "Majidi"	803	28th do.
19.	S. S. "Firoozi"	926	1st December 1908.
20.	S. S. "Mahommadi"	716	3rd do.
21.	S. S. "Ipswich"	458	7th do.
	Total ...	16,097	

22. As far as I can gather there was no case of plague among the pilgrims who left for Mecca during the year under report. Owing to the abolition of segregation of pilgrims at Bombay a fully equipped plague observation station capable of receiving an entire shipload of pilgrims from a plague infected vessel for treatment under Article 21 of the Paris Convention was established at Perim during the pilgrim season. All the pilgrim-ships after inspection at Perim called at Camaran where they landed their passengers to undergo observation before the Turkish authorities allowed them to proceed to Jeddah. The British Consul at Jeddah reported by telegram to the Government of India that cholera broke out among the crew of a British ship at Camaran. The ship referred to in the telegram was the S. S. "Alavi". She left Bombay on 13th November with 856 pilgrims and arrived at Camaran on the 12th day after leaving this Port. Before the vessel left Bombay she was freed from rats and cockroaches by the Clayton process. Her crew were individually medically inspected and their clothing and bedding disinfected on the day of sailing. There was no cholera in Bombay at or about the time of the vessel's departure from this Port, nor were any suspicious cases on board during the voyage. None of the pilgrims or the crew were treated for diarrhœa up to 26th November. On the 27th idem, that is, 3 days after the "Alavi" had arrived at Camaran the first case of diarrhœa was under the treatment of the Medical Officer of the vessel, on the 28th another and on the 29th two more cases of diarrhœa were reported. All the attacked were from amongst the crew. Only one of the four who were ill died. This is a very low rate of mortality at the commencement of an outbreak of cholera. From the statement of Dr. Clemow (British Delegate to the Constantinople Board of Health) it would appear that the bacteriological examination which was made at Camaran was somewhat doubtful. None of the pilgrims on board and who drank the same water as the crew were attacked. The

doctor of the ship is of opinion that the attacks from which the four members of the crew suffered were brought on by the inordinate consumption of the fish which was abundant in Camaran. The occurrence of a marked increase in the number of cases af diarrhœa both among the crew and the pilgrims of a ship after the vessel has been for some days at Camaran has frequently been recorded in the diaries of the doctors in charge of pilgrim ships, and I believe that this increase as well as some, if not all, of the so-called outbreaks of cholera must be due to some condition prevailing at Camaran.

B.—Inward Pilgrim Traffic.

23. During the year under report 18,351 pilgrims of the previous year's Haj arrived from Jeddah in 24 vessels. The names of ships, and the number of pilgrims brought by each vessel, as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay, are tabulated in statement No. 3 which is attached to this report.

24. The total number of deaths which occurred at sea among the pilgrims was 340. The chief causes were old age, general debility, privation, pneumonia, dysentery and diarrhœa.

25. Eighteen pilgrim-ships had, during their voyage from Jeddah to Bombay, 6 cases of plague, 113 cases of smallpox, 2 cases of chickenpox, and 1 case of measles. Of the 113 cases of smallpox 1 occurred among the crew, 7 cases were landed at Aden and 1 case was landed at Muculla, 13 cases proved fatal during the voyage and the remaining 92 were landed at Bombay and sent to hospital for treatment. One case of measles was landed at Aden and the two cases of chickenpox were removed at this Port from the vessel on which they occurred and sent to hospital for treatment. Vaccination was offered to the pilgrims among whom smallpox was prevailing but none of them was willing to avail himself of the offer.

26. The three vessels on which cases of plague had occurred were thoroughly fumigated by means of the Clayton process. The clothing and bedding of 14,599 pilgrims among whom plague, smallpox, chickenpox and measles appeared were disinfected after which the pilgrims were taken charge of by the Protector of Pilgrims for despatch to their homes. The effects of 1,660 crew of the infected ships were also disinfected.

27. Smallpox is endemic and it frequently prevails as a virulent epidemic in the Holy Cities and other places in Arabia. Almost every year the Indian pilgrims who return from the Mecca Haj bring smallpox with them. During the past 12 months 18,351 Mahomedan pilgrims returned on 24 ships from Jeddah *vid* Bombay to all parts of India. The average duration of the voyage is about 12 days and the pilgrims developed during the voyage 113 cases of smallpox. The number of smallpox cases which occurred during the year is, I admit, above the average. All we can do at present in Bombay to protect India is to send the smallpox cases to hospital, disinfect by means of steam in suitable disinfecting chambers the clothing, bedding and other belongings of the shipload of Hajis among whom smallpox occurred, and offer all pilgrims vaccination free of charge. I am sorry to say that very few of the pilgrims accept the offer of vaccination.

28. Many of the returning pilgrims are incubating smallpox when they land in Bombay and they develop it later on in their villages upcountry where they become foci of infection. And herein probably lies the greatest mischief. Placing the pilgrims in quarantine on their return from Mecca is not practicable nor would it be expedient. Compulsory vaccination of the returned Hajis would not be of very much use towards preventing the development of smallpox in those who are incubating it on arrival in India nor would it prevent those who develop the disease from becoming foci of infection in their villages. If Indian pilgrims, who appear to be very susceptible to smallpox, were vaccinated, or re-vaccinated, as the case may be, immediately before leaving India for Mecca many lives would be saved as well as much disfigurement and suffering. The deaths in British India from smallpox fluctuate considerably but they may be taken as about 100,000 per annum.

29. Perhaps Government may consider it advisable to make some alteration in the Rules framed under the Pilgrims Ships Act and which rules are now in course of amendment with a view to the vaccination of all Mahomedan pilgrims being carried out prior to their departure from India for Mecca.

IX.—Emigration Traffic.

30. Owing to the prevalence of plague in the City of Bombay the Emigration Traffic has been suspended since the year 1897.

X.—Sanitary State of the Harbour and Foreshore.

31. The sanitary state of the harbour and of the various bunders, basins and docks was fairly satisfactory.

XI.—Cholera, Smallpox and Plague in the City of Bombay.

32. During the year under report 58 deaths from cholera, 1,026 deaths from smallpox and 5,361 deaths from plague occurred in the City of Bombay.

XII.—Establishment.

33. The following list shows the names of the Medical Officers and Subordinates, who did duty under the Port Health Officer from time to time during the year:—

Name.	Period of Service.		
	Y.	m.	d.
Dr. H. C. Venis	1	0	0
Dr. J. W. O. Van Millingen	0	0	23
Dr. R. D. Dalal	0	1	7
Dr. E. Head Moore	0	0	16
Dr. J. S. Fraser	0	3	0
Dr. (Miss) S. Smith	1	0	0
Miss G. M. A. Jessop	0	5	19
Assistant Surgeon H. F. Otto, I.S.M.D.	1	0	0
Do. D. E. Barrett, I.S.M D.	0	4	0
Do. L. V. O. Easdon, I.S.M.D.	0	3	7
Hospital Assistant B. M. Bhatt	0	10	5
Do. N. B. Pandya	0	9	5
Do. M. L. Patwa	0	1	29
Do. G. B. Dalvi	0	8	28
Do. H. J. Hakim	0	0	23
Do. F. H. Anklesaria	1	0	0
Do. G. G. Wagle	0	1	25
Do. C. B. Gandhi	0	3	3

34. During the greater part of the year, *viz.* from 1st January to 8th October 1908, Lieutenant-Colonel W. E. Jennings, M.D., D.P.H., I. M. S., was in charge of the Port Health Department. The undersigned on his return from furlough on 9th October 1908 resumed his duties as Port Health Officer.

35. The Medical Officers and Subordinates as shown in the foregoing table worked to the entire satisfaction of my predecessor and myself and with the same zeal and tact which they have always displayed in carrying out their onerous duties.

36. Inspector A. Dixon and the Police Staff under him worked most satisfactorily.

37. Lieutenant-Colonel Jennings has reported most favourably of the work done by the office staff under Mr. Ramrao G. Kamalakar.

38. The office peons and all the members of the Disinfection and Steam Launch Establishments discharged their duties satisfactorily.

39. The shipping agents and commanders of vessels as a rule observed the regulations and carried out cheerfully the orders framed in connection with the Venice and Paris Sanitary Conventions.

J. CRIMMIN, V.C., C.I.E., D.P.H.,
Lieut.-Colonel, I. M. S.,
Health Officer of the Port.

Bombay Port Health Office:
Town Customs House, dated 18th March 1909.

TABLE No. 1.

The following tabular statement gives a summary of the Shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1908 :—

Vessels including Country Craft.	Total Number of Vessels.	Number of Vessels inspected.	Number of Persons inspected, including crew on Vessels.	Number of Native crew and 3rd class or Deck passengers disinfected during the year.	Number of Vessels disinfected.	Number of Persons vaccinated.	Diseases and Number of Cases of each.							
							Plague.	Cholera.	Smallpox.	Measles.	Chickenpox.	Jigger.	Scarlatina.	Leprosy.
1908.														
Entered	32,749	113	43,382	18,027	29	343	6	1	114	16	3	1	3	...
Left	37,999	2,299	191,684	72,098	21		...	...	1	...	4	...	...	...
In harbour during the year	1,105	15	.....	1,215	15		3	2	8	1	2	...	...	...
Total ...	71,853	2,427	235,066	91,340	65	343	9	3	123	17	9	1	3	...
Total for 1907 ...	74,888	11,708	894,848	92,151	60	54	19	9	33	34	28	14	1	3

TABLE No. 2.

The following table includes all Steamers, Square-rigged Vessels and Native Crafts which became infected while lying in the Port of Bombay during the year 1908 :—

Months.	Number of Persons who were attacked with Plague at Bandars and in the Docks.		Total Number of cases of infectious diseases in the Bombay Harbour.											
			Total Number of infected Vessels.	Cholera.		Smallpox.		Measles.		Chickenpox.		Plague.		Number of crew disinfected.
	Cases.	Deaths.		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
1908.														
January ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
February ...	...	...	2	...	...	2	...	...	...	...	...	...	...	205
March ...	...	...	6	1	...	2	...	1	...	2	...	...	...	397
April ...	...	...	3	...	...	2	...	...	...	...	...	2	1	264
May ...	...	...	1	...	...	1	...	...	...	...	...	...	...	122
June ...	1	...	2	...	...	1	...	...	...	...	...	1	...	122
July ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
August ...	...	...	1	1	...	...	...	...	...	...	...	...	...	105
September ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
October ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
November ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
December ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
Total ...	1	...	15	2	...	8	...	1	...	2	...	3	1	1,215
Total for 1907.	...	...	15	9	6	...	...	...	...	...	...	7	5	.....

TABLE No. 3.

Statement showing the number of Pilgrims who returned to Bombay from Mecca by vessels during the year 1908:—

No.	Name of Ship.	Date of Arrival.	Number of Crew.	Number of Pilgrims.	Number of deaths during voyage.	Number of Pilgrims disinfected.	Number of cases of infectious diseases on board and during voyage.
1	S. S. "Zamania" ...	6th February 1908 ...	152	1,169	25	984	1 case of small-pox, 2 cases of chicken-pox, 5 cases of small-pox and 1 case of measles had been landed at Aden.
2	S. S. "Shah Noor" ...	6th do. ...	101	1,093	28		2 cases of plague one of which died and was buried at sea. 2 cases of small-pox were reported to have been landed at Aden.
3	S. S. "Zibenghla" ...	6th do. ...	132	895	26	2,705	24 cases of small-pox.
4	S. S. "Firoozi" ...	7th do. ...	76	900	14		8 Do. do.
5	S. S. "Rahmani" ...	8th do. ...	80	770	15	750	7 Do. do.
6	S. S. "Budrie" ...	11th do. ...	85	825	23	825	5 Do. do.
7	S. S. "Mohammadi" ...	11th do. ...	74	688	18	630	4 Do. do.
8	S. S. "Shah Najam" ...	11th do. ...	109	1,157	27	1,157	14 Do. do.
9	S. S. "Ahmadi" ...	12th do. ...	72	689	27	682	8 Do. do.
10	S. S. "Islami" ...	15th do. ...	86	821	22	821	16 Do. do.
11	S. S. "Shah Allum" ...	15th do. ...	84	613	23	613	10 cases of small-pox and 1 case of plague.
12	S. S. "Majidi" ...	1st March 1908 ...	77	714	7	714	One case of small-pox detected on arrival.
13	S. S. "Muzaffari" ...	8th do. ...	78	602	8	...	Nil. 2 stowaways were found on arrival.
14	S. S. "Shah Noor" ...	9th do. ...	106	1,184	18	1,184	1 case of plague and 1 case of small-pox were found on arrival. 2 deaths from plague and 1 from small-pox during voyage.
15	S. S. "Firoozi" ...	19th do. ...	79	750	13	750	1 case of small-pox landed at Makulla and 1 on board on arrival.
16	S. S. "Shah Najam" ...	23rd do. ...	109	1,189	9	1,189	1 case of small-pox.
17	S. S. "Munsoori" ...	25th do. ...	82	844	12	844	1 case of small-pox.
18	S. S. "Hooseini" ...	1st April 1908 ...	65	418	4	...	Nil.
19	S. S. "Rahmani" ...	4th do. ...	82	785	3	...	1 case of small-pox (convalescent among crew).
20	S. S. "Budrie" ...	4th do. ...	82	654	11	...	Nil.
21	S. S. "Ahmadi" ...	18th do. ...	72	456	2	...	Nil.
22	S. S. "Shah Ameer" ...	18th do. ...	74	701	5	701	1 case of small-pox.
23	S. S. "Moshtari" ...	25th May 1908 ...	69	283	1	...	Nil.
24	S. S. "Firoozi" ...	25th June 1908 ...	73	151	Nil.	...	Nil.
		Total ...	2,099	13,351	340	14,599	

APPENDIX II-*b*.

ANNUAL REPORT BY THE HEALTH OFFICER OF THE PORT OF KARA'CHI FOR 1908.

Detention Camp, Grass Bandar, Karáchi,
11th January 1909.

Outgoing Vessels.

During the year 353 steam vessels were inspected by the Health Officers of the Port and were given Bills of Health. Of this number 69 were proceeding to Aden, Red Sea and Europe, 179 to other places out of India including Persian Gulf and 105 to ports in India and Burma.

The medical inspection of vessels proceeding to ports in India and Burma was abolished from 3rd December 1908, *vide* Government Resolution No. 1758-P, dated 19th November 1908.

Bills of Health were also given after inspection to 360 country boats.

The native crew and deck passengers of all vessels proceeding to ports out of India were medically inspected at the Detention Camp and their kit, excepting boots was disinfected by steam. The boots when requiring disinfection were exposed to the action of Formaldehyd Gass.

Incoming Vessels.

Nine steam vessels and 19 country boats were inspected for the existence of infectious diseases. The country boats include all those arriving from East African Ports.

Plague.

No cases occurred in the harbour or amongst the shipping visiting this port during the year.

Cholera.

No cases occurred in the harbour, or amongst the shipping visiting this port during the year.

Small-pox.

12 cases were removed to the Civil Hospital from incoming vessels. Out of the above 12 cases, 10 cases occurred on one steamer only, the crew and passengers of which were offered vaccination, but only 6 of the crew and 6 passengers availed themselves of the same.

Chicken-pox.

No cases of this disease were detected during the year.

Measles.

Two cases were removed to the Civil Hospital from incoming vessels.

Jigger.

No cases of this disease were detected during the year.

Sleeping Sickness.

No cases were detected.

Diseases other than the above-mentioned.

13 deaths occurred on board the vessels either on the voyage or in the harbour and 16 cases were removed to the Civil Hospital :—

1 suffering from enlarged glands,
13 from mumps, and
2 from high temperature.

16

Red Sea Pilgrims.

None passed through Karáchi during the year.

Emigrants.

During the year one artizan passed through the Camp en route to Mombasa *viâ* Bombay for work on the Uganda Railway after 5 days' segregation in this Camp.

The following is a tabular statement of the vessels, crew and passengers inspected during the year :—

	Vessels.			Crew and Passengers.		
	Steamers.	Country Boats.	Total.	Steamers.	Country Boats.	Total.
Incoming	9	19	28	1,102	263	1,365
Outgoing	353	360	713	59,674	3,652	63,326

Out of the total number of crews and passengers which were medically inspected as shown above, 32,045 also had their kit disinfected.

Staff.

The duties connected with the Port Health Department were carried out during the first five months of the year by Captain W. H. Dickinson, I. M. S., the Port Health Officer and Chemical Analyser, who was relieved on May 21st, 1908, by Assistant Surgeon E. Mackenzie whom I relieved on the 18th November 1908.

Hospital Assistant Shaik Umer has rendered every assistance in the performance of the work of this Camp.

The Disinfection Supervisor Metharam Pertabrai has rendered most valuable assistance and has carried on his duties to entire satisfaction during the year.

A. H. MACGREGOR,
Port Health Officer, Karáchi.

APPENDIX II-*c*.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF ADEN FOR THE YEAR 1908.

I.—General Remarks.

Shipping.—1,361 steamers and square rigged vessels were granted bills of health during the year.

Of the above number, 819 under the British flag and 542 under foreign flags.

Bills of health issued to vessels from infected ports were annotated according to the circumstances of each case.

1,174 bills of health were issued to Buggalows during the year.

The accompanying Table A gives a list of vessels on board of which infected diseases existed on arrival.

In the case of these vessels all possible Sanitary precautions were taken on arrival at Aden to prevent the spread of disease.

Vessels and native craft arriving from Berbera, the Somali Coast and from East Africa were personally inspected and certified free from small-pox, Jigger and sleeping sickness.

Small-pox cases landed from ships 58.

Cases of plague 1.

Chicken-pox 10.

Cholera 1.

Measles 3.

II.—Pilgrim Traffic.

46 Pilgrim ships carrying pilgrims passed through the port during the year; all were medically inspected but not granted pratique :—

Year.	No. of ships.	No. of pilgrims.	No. of deaths.	Cases of infectious diseases on board.					No. of vessels infected.
				Cholera.	Chicken-pox.	Plague.	Measles.	Small-pox.	
1908	46	34,089	152	1	4	1	...	51	16

III.—Table A.

List of Vessels on board of which infectious diseases existed on arrival at Aden :—

No. of ships.	No. of cases landed.	No. of cases died.	No. of cases recovered.	Average of cases per ship.	Average stay in hospital of each patient.		Remarks.
					Fatal.	Non-fatal.	
					9·5	32·2	
22	58	30	28	2·6	20·4		

Date and month.	Names of Vessels.	From	To	No. of cases.	Whether pilgrim or otherwise.	Remarks.
28th January 1908 ...	S. S. "Shah Noor" ...	Jeddah ...	Bombay ...	2	Yes ...	Small-pox.
29th January 1908 ...	S. S. "Feroozi" ...	,, ...	,, ...	10	,, ...	,,
Do. do. ...	S. S. "Zamanla" ...	,, ...	,, ...	5	,, ...	,,
30th January 1908 ...	S. S. "Rahmani" ...	,, ...	,, ...	6	,, ...	,,
31st January 1908 ...	S. S. "Mahammadi" ...	,, ...	,, ...	4	,, ...	1 plague, 3 small-pox.
1st February 1908 ...	S. S. "Budrie" ...	,, ...	,, ...	5	,, ...	Small-pox.
2nd February 1908 ...	S. S. "Shah Najam" ...	,, ...	,, ...	6	,, ...	,,
3rd February 1908 ...	S. S. "Ahmedi" ...	,, ...	,, ...	2	,, ...	,,
6th February 1908 ...	S. S. "Islami" ...	,, ...	,, ...	6	,, ...	1 cholera, 5 small-pox.
6th February 1908 ...	S. S. "Shah Alam" ...	,, ...	,, ...	4	,, ...	2 Chicken-pox, 2 small-pox.
22nd February 1908 ...	S. S. "Majidi" ...	,, ...	,, ...	2	,, ...	1 cholera, 1 small-pox.
9th March 1908 ...	S. S. "Feroozi" ...	,, ...	,, ...	1	,, ...	Small-pox.
16th March 1908 ...	S. S. "Mansoori" ...	,, ...	,, ...	1	,, ...	,,
22nd March 1908 ...	S. S. "Hooseinie" ...	,, ...	,, ...	1	,, ...	,,
2nd April 1908 ...	S. S. "Persia" ...	Bombay ...	London ...	1	No ...	,,
12th April 1908 ...	S. S. "Macedonia" ...	London ...	Bombay ...	2	,, ...	Measles.
14th May 1908 ...	S. S. "Umblali" ...	Bombay ...	Hull ...	1	,, ...	Small-pox.
16th June 1908 ...	S. S. "Velledela Cital".	,, ...	Marseilles ...	2	,, ...	Chicken-pox, both satisfactorily isolated.
24th July 1908 ...	S. S. "Peninsula" ...	London ...	Bombay ...	1	,, ...	Small-pox.
1st December 1908 ...	S. S. "Haderi" ...	Bombay ...	Jeddah ...	1	Yes ...	,,
3rd December 1908 ...	S. S. "Shah Alam" ...	,, ...	,, ...	1	,, ...	,, death.
25th December 1908 ...	S. S. "Malta" ...	London ...	Yokohama ...	1	No ...	Measles.

Note.—Sixty-five cases of infectious diseases were found in ships above mentioned at Aden, *viz.*, small-pox 50, chicken-pox 10, measles 3, plague 1, and cholera 1.

IV.—The following are the names and other information regarding Pilgrim Ships which passed through Aden during the year :—

No.	Date and month.	Names of Vessels.	Nationality.	From	To	Declared number of Pilgrims.	No. of cases of infectious diseases.	Number of deaths.
1	28th January 1908.	S. S. "Shah Noor" ...	British ...	Jeddah ...	Bombay ...	1,096	2	6
2	29th January 1908.	S. S. "Feroozi" ...	,, ...	,, ...	,, ...	923	10	2
3	Do. ...	S. S. "Zamania" ...	,, ...	,, ...	,, ...	1,200	5	7
4	30th January 1908.	S. S. "Rahmani" ...	,, ...	,, ...	,, ...	780	6	3
5	31st January 1908.	S. S. "Mahammadi" ...	,, ...	,, ...	,, ...	707	4	4
6	Do. ...	S. S. "Hooseinie" ...	,, ...	,, ...	Persian Gulf...	678	...	5
7	1st February 1908.	S. S. "Budrie" ...	,, ...	,, ...	Bombay ...	843	5	8
8	2nd February 1908.	S. S. "Shah Najam" ...	,, ...	,, ...	,, ...	1,180	6	11
9	3rd February 1908.	S. S. "Ahmedi" ...	,, ...	,, ...	,, ...	719	2	3
10	6th February 1908.	S. S. "Islami" ...	,, ...	,, ...	,, ...	830	6	10
11	Do. ...	S. S. "Shah Alam" ...	,, ...	,, ...	,, ...	790	4	10
12	14th February 1908.	S. S. "Euphrate" ...	Russian ...	,, ...	Bassrah ...	650	...	...
13	22nd February 1908.	S. S. "Majidi" ...	British ...	,, ...	Bombay ...	730	2	1
14	28th February 1908.	S. S. "Muzaffari" ...	,, ...	,, ...	,, ...	598	...	4
15	9th March 1908.	S. S. "Feroozi" ...	,, ...	,, ...	,, ...	862	1	4
16	15th March 1908.	S. S. "Islami" ...	,, ...	,, ...	Persian Gulf .	720	...	6
17	Do. ...	S. S. "Shah Najam" ...	,, ...	,, ...	Bombay ...	1,220	...	4
18	16th March 1908.	S. S. "Mansoori" ...	,, ...	,, ...	,, ...	856	1	4
19	22nd March 1908.	S. S. "Hooseinie" ...	,, ...	,, ...	,, ...	449	1	1
20	25th March 1908.	S. S. "Rahmani" ...	,, ...	,, ...	,, ...	812	...	2
21	9th April 1908.	S. S. "Ahmedi" ...	,, ...	,, ...	,, ...	495	...	...
22	19th September 1908.	S. S. "Mansoori" ...	,, ...	Bombay ...	Jeddah ...	832	...	2
23	29th September 1908.	S. S. "Rahmani" ...	,, ...	,, ...	,, ...	433	...	2

No.	Date and month.	Names of Vessels.	Nationality.	From	To	Declared number of Pilgrims.	No. of cases of infectious diseases.	Number of deaths.
24	1st October 1908.	S. S. "Budrie" ...	British ...	Bombay ...	Jeddah ...	886	...	...
25	7th October 1908.	S. S. "Islami" ...	" ...	" ...	" ...	816	...	...
26	12th October 1908.	S. S. "Muzaffari" ...	" ...	" ...	" ...	591	...	1
27	24th October 1908.	S. S. "Majidi" ...	" ...	" ...	" ...	781	...	4
28	26th October 1908.	S. S. "Shah Alam" ...	" ...	" ...	" ...	657	...	14
29	30th October 1908.	S. S. "Feroozi" ...	" ...	" ...	" ...	814	...	2
30	9th November 1908.	S. S. "Mansoori" ...	" ...	" ...	" ...	864	...	1
31	15th November 1908.	S. S. "Rahmani" ...	" ...	" ...	" ...	793	...	...
32	19th November 1908.	S. S. "Xema" ...	" ...	" ...	" ...	617	...	...
33	20th November 1908.	S. S. "Naderi" ...	" ...	Bassrah ...	" ...	230	...	...
34	22nd November 1908.	S. S. "Alavi" ...	" ...	Bombay ...	" ...	849	...	6
35	26th November 1908.	S. S. "Budrie" ...	" ...	" ...	" ...	894	...	1
36	Do. ...	S. S. "Islami" ...	" ...	" ...	" ...	829	...	3
37	27th November 1908.	S. S. "Muzaffari" ...	" ...	Bassrah ...	" ...	373	...	...
38	1st December 1908.	S. S. "Haideri" ...	" ...	Bombay ...	" ...	593	1	2
39	3rd December 1908.	S. S. "Shah Alam" ...	" ...	" ...	" ...	803	1	4
40	5th December 1908.	S. S. "Shah Jehan" ...	" ...	" ...	" ...	1,075	...	3
41	8th December 1908.	S. S. "Majidi" ...	" ...	" ...	" ...	800	...	5
42	Do. ...	S. S. "Alavi" ...	" ...	Camaran ...	Bombay ...	2	...	...
43	10th December 1908.	S. S. "Feroozi" ...	" ...	Bombay ...	Jeddah ...	921	...	7
44	12th December 1908.	S. S. "Mahammadi" ...	" ...	" ...	" ...	709	...	1
45	13th December 1908.	S. S. "Ahmedi" ...	" ...	Bassrah ...	" ...	363	...	2
46	16th December 1908.	S. S. "Ispwick" ...	" ...	Bombay ...	" ...	453	...	3

V.—Prevailing Diseases.

Dysentery, malarial fever, diseases of respiratory system, ulcers, digestive system and small-pox.

Small-pox existed in epidemic form and was of a very virulent type, owing to the people, who were attacked not being vaccinated.

Compulsory vaccination was enforced on all arrivals and residents of Aden after 1st August last, who had not been vaccinated.

Under the strong measures adopted to secure total vaccination of the people, the small-pox epidemic gradually died out.

VI.—Table showing the number of cases treated at the Small-pox Hospital, Maala, during the year :—

Year.	Remaining per last return.	Admissions.	Deaths.	Protected.	Unprotected.	Remarks.
1908	1	232	109	54	178	

Sources of admissions.					Europeans.	Remarks.
Shipping.	Steamer Point and Hedjaff.	Crater.	Interior.	Sheikh Othman.		
58	17	154*	2	1	4	*Consisting of 1 from Little Aden, 1 from Khormaksar and 49 from Maala.

VII. Statement showing the tubes received, their cost and the vaccination operations performed during the year :—

Number of tubes received.		Cost.		Remarks.
English.	Bombay.	Lanolin Lymph.	Glycerinated vaccine.	
		Rs. a. p.	Rs. a. p.	
126	*9,386	415 3 0	2,384 0 0	*150 tubes at annas eight and the rest at annas four each.

Total number of operations performed.	Result.			Remarks.
	Successful.	Failed.	Unknown.	
16,004	9,176	2,347	4,481	

Note.—These are the vaccinations performed during the year, and which have proved remarkably beneficial.

VIII.—Establishment.

Lieut.-Colonel C. Monk, I.M.S., from January 1st 1908 to March 29th 1908.

Major S. E. Prall, I.M.S., from March 30th 1908 to September 16th 1908.

Captain J. H. Conway, R.A.M.C., acted as Port Surgeon on the 17th September 1908, but drew no allowance as such.

Major W. S. P. Ricketts, I.M.S., from September 18th 1908 to December 31st 1908.

Office Establishment.

Mr. H. A. Poyntz, Clerk, January 1st 1908 to December 31st 1908.
Abdur Rehman, peon do. do.

Launch Establishment.

1. Driver, Awad Saeed, January 1st 1908 to December 31st 1908.
2. Succani, Ahmed Suleman, do. do.
3. Stoker, Hussein Noman, do. do.
4. Lascar, Mahommad Magon, do. do.

S. E. PRALL, Lieut.-Colonel, I.M.S.,
Port Surgeon, Aden.

Aden, 10th July 1909.

APPENDIX III.

The following table shows when the drainage and water-works were completed and the average annual death-rate for the five-year period preceding the introduction, and also the ratio for the five-year period ending with the year under report exclusive of recorded plague mortality.

The rural death-rates for each district are added for comparison.

Name of District.	Tálnka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1908 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in Rural circles for the year 1908.	Plague mortality in Rural circles, 1908.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay ...	*a* 1879	*b* 1892	40·71	Not available.	...	...
West Khándesh ...	Dhulia ...	Dhulia ...	...	1896	25·17	32·50	32·06	...
Ahmednagar ...	Ahmednagar ...	Ahmednagar ...	...	1897	45·69	55·65	23·00	·02
Surat ...	Olpád ...	Surat ...	...	1898	33·25	39·77	29·26	1·46
Ahmedabad ...	Daskroi ...	Ahmedabad ...	*c* 1893	1891	52·46	45·21	31·80	·71
Karáchi ...	Karáchi ...	Karáchi ...	*c* 1895	1894	31·81	35·15	7·95	...
Sukkur ...	Sukkur ...	Sukkur ...	....	1895	33·66	28·70	25·47	...
Thána ...	Sálsette ...	Bándra ...	...	1896	26·73	23·01	30·07	2·47
Kolába ...	Panvel ...	Panvel ...	...	1895	23·22	19·50	23·46	·20
Dhárwár ...	Hubli ...	Hubli ...	...	1894	25·68	25·70	21·70	·64
Ahmedabad ...	Viramgám ...	Viramgám ...	*d* 1893	...	39·89	69·28	33·45	·23

a Drainage works commenced in 1879 still in progress.

b Tánsa water works completed in 1892. Besides this there are Vehár and Tulsi Water Works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

GENERAL POPULATION AND VITAL STATISTICS.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1908.*

1	2	3			4			5			6	7	8	9		
No	Districts.	POPULATION ACCORDING TO CENSUS OF 1901.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of Males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	West Khándesh ...	237,085	232,569	469,654	13,400	13,148	26,548	28·53	28·00	56·53	101·92	24·29	..	26·28	25·11	51·39
2	East Khándesh ..	484,480	472,671	957,151	25,135	23,794	48,929	26·26	24·86	51·12	105·64	19·76	..	24·90	23·54	48·44
3	Násik	412,647	402,702	815,349	20,240	18,948	39,197	24·83	23·24	48·07	106·86	18·91	..	22·94	21·79	44·73
4	Thána	421,931	388,901	810,832	14,068	14,422	29,390	13·46	17·78	36·24	103·79	6·77	..	17·31	16·45	33·76
5	Kolába	304,412	301,095	605,507	11,215	10,712	21,927	18·52	17·69	36·21	104·70	9·77	..	16·46	15·47	31·93
6	City of Bombay ..	600,599*	358,938*	959,537*	10,225	9,663	19,388	10·66	10·07	20·73	105·82	..	18·74	12·25	11·40	23·65
	Central Registration District.															
7	Ahmednagar	417,098	419,779	836,877	20,679	19,721	40,400	24·71	23·57	48·28	104·86	21·29	..	22·00	20·89	42·89
8	Poona	498,248	490,854	989,102	18,826	17,629	36,455	19·04	17·82	36·86	106·79	6·81	..	17·63	16·42	34·05
9	Sholápur	362,569	358,018	720,587	13,458	12,675	26,133	18·68	17·59	36·27	106·18	9·69	..	18·94	17·93	36 87
10	Sátára	568,764	577,266	1,146,030	20,546	18,882	39,428	17·93	16·47	34·40	108·81	14·81	..	16·69	15·63	32·32
11	Ratnágiri	547,499	620,376	1,167,875	18,276	17,336	35,612	15·65	14·84	30·49	105·42	9·33	..	15·00	14·35	29·35
	Southern Registration District.															
12	Belgaum	501,087	491,175	992,262	18,607	18,036	36,643	18·75	18·18	36·93	103·17	11·59	..	16·33	16·11	32·93
13	Dhárwár	560,567	552,045	1,112,612	20,211	19,262	39,473	18·17	17·31	35·48	104·92	11·18	..	16·00	15·36	31·36
14	Bijápur	367,997	367,403	735,400	16,547	15,961	32,508	22·51	21·70	44·21	103·67	18·31	...	19·67	19·08	38·75
15	Kánara	236,003	218,414	454,417	6,605	6,328	12,933	14·54	13·92	28·46	104·38	..	5·49	15·55	14·92	30·47
	Gujarát Registration District.															
16	Surat	317,709	319,173	636,882	11,863	11,420	23,283	18·63	17·93	36·56	103·88	10·64	..	18·19	17·15	35·34
17	Broach	148,504	143,225	291,729	7,037	6,767	13,804	24·12	23·20	47·32	103·99	10·47	..	21·97	21·00	42·97
18	Kaira	375,599	340,654	716,253	15,304	13,498	28,802	21·37	18·84	40·21	113·38	8·40	..	19·73	17·99	37·72
19	Panch Mahals ..	132,035	128,968	261,003	6,340	6,111	12,451	24·29	23·41	47·70	103·74	23·08	...	22·52	21·65	44·17
20	Ahmedabad	407,626	387,718	795,344	15,285	13,677	28,962	19·22	17·19	36·41	111·76	..	2·03	16·52	15·02	31·54
	Sind Registration District.															
21	Karáchi	246,241	196,509	442,750	6,106	5,338	11,444	13·79	12·06	25·85	114·39	2·39	..	12·84	11·20	24·05
22	Hyderabad	543,951	444,524	988,475	9,591	6,934	16,525	9·70	7·01	16·72	138·32	...	·77	10·00	7·29	17·28
23	Thar and Párkar ..	202,707	161,162	363,869	4,458	3,290	7,748	12·25	9·04	21·29	135·50	2·89	..	10·41	7·95	18·36
24	Lárkhána	354,103	301,980	656,083	8,342	6,591	14,933	12·71	10·05	22·76	126·57	4·24	..	12·10	9·59	21·69
25	Sukkur	281,592	241,327	522,919	7,006	5,673	12,679	13·40	10·85	24·25	123·50	·94	..	13·69	11·21	24·90
26	Upper Sind Frontier..	129,838	102,147	231,985	2,390	1,716	4,106	10·30	7·40	17·70	139·28	1·31	..	11·08	8·37	19·45
	Total for the Presidency ..	9,529,472	8,951,890	18,481,362	342,668	317,532	660,201	18·54	17·18	35·72	107·92	8·57	..	17·26	15·99	33·25

* Population according to the Census of 1906.

ANNUAL FORM NO. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1908.*

1	2	3	4	5			6		7			8
Serial Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS OF 1901).			BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	West Khándesh	5,496	85	237,085	232,569	469,654	26,548	56·53	7,902	7,238	15,140	109·17
2	East Khándesh	4,545	211	484,480	472,671	957,151	48,929	51·12	15,413	14,601	30,014	105·56
3	Násik	5,850	139	412,647	402,702	815,349	39,197	48·07	12,525	11,257	23,782	111·26
4	Thána	3,573	227	421,931	388,901	810,832	29,390	36·24	12,532	11,369	23,901	110·23
5	Kolába	2,131	284	304,412	301,095	605,507	21,927	36·21	8,518	7,793	16,311	109·30
6	City of Bombay	22	4,3615	600,599	358,938	959,537*	19,888	20·73	21,378	16,498	37,876	129·58
	Central Registration District.											
7	Ahmednagar	6,586	127	417,033	419,779	836,817	40,400	48·28	11,811	10,771	22,582	109·66
8	Poona	5,349	185	498,248	490,854	989,102	36,455	36·86	15,435	14,281	29,716	108·81
9	Sholápur	4,541	159	362,569	358,018	720,587	26,133	36·27	9,753	9,405	19,158	103·70
10	Sátára	4,825	238	568,764	577,266	1,146,030	39,428	34·40	11,411	11,042	22,453	103·34
11	Ratnágiri	3,993	292	547,499	620,376	1,167,875	35,612	30·49	12,792	11,915	24,707	107·36
	Southern Registration District.											
12	Belgaum	4,649	213	501,087	491,175	992,262	36,643	36·93	12,677	12,468	25,145	101·68
13	Dhárwár	4,602	242	560,567	552,045	1,112,612	39,473	35·48	13,667	13,367	27,034	102·24
14	Bijápur	5,669	129	367,997	367,403	735,400	32,508	44·21	9,593	9,443	19,046	101·59
15	Kánara	3,945	115	236,003	218,414	454,417	12,933	28·46	7,983	7,443	15,426	107·25
	Gujarát Registration District.											
16	Súrat	1,653	385	317,709	319,173	636,882	23,283	36·56	8,382	8,123	16,505	103·19
17	Broach	1,467	199	148,504	143,225	291,729	13,804	47·32	5,500	5,249	10,749	104·78
18	Kaira	1,595	449	375,599	340,654	716,253	28,802	40·21	11,902	10,881	22,783	109·38
19	Panch Mahals	1,606	162	132,035	128,968	261,003	12,451	47·70	3,129	3,297	6,426	94·90
20	Ahmedabad	3,816	208	407,623	387,718	795,344	28,962	33·41	15,654	14,923	30,577	104·90
	Sind Registration District.											
21	Karáchi	11,971	37	246,241	196,509	442,750	11,444	25·85	5,777	4,610	10,387	125·31
22	Hyderabad	8,291	119	543,951	444,524	988,475	16,525	16·72	9,436	7,948	17,384	120·23
23	Thár and Párkar	13,690	27	202,707	161,162	363,869	7,748	21·29	3,711	2,983	6,694	124·40
24	Lárkhána	4,762	138	354,103	301,980	656,083	14,933	22·76	6,317	5,836	12,153	108·24
25	Sukkur	5,731	91	281,592	241,327	522,919	12,679	24·25	6,413	5,774	12,187	111·07
26	Upper Sind Frontier ...	2,621	81	129,838	102,147	231,985	4,106	17·70	2,025	1,777	3,802	113·96
	Total for the Presidency...	122,984	150	9,529,472	8,951,890	18,481,362	660,201	35·72	261,646	240,192	501,838	108·93

1	2	9										10		
Serial Number.	Districts.	DEATHS PER 1,000 OF POPULATION FROM							All causes.			MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.													
1	West Kándesh	...	·26	·04	16·94	6·02	2·43	·20	6·36	33·33	31·12	32·25	41·16	39·97	40·57
2	East Khándesh	...	·08	·84	12·29	7·39	3·60	·28	6·87	31·81	30·89	31·35	41·53	40·03	40·78
3	Násik	·13	·14	·33	12·01	1·76	3·05	·28	11·46	30·35	27·95	29·16	42·97	41·02	42·00
4	Thána	·11	·14	1·03	18·95	·97	1·00	·57	6·69	29·70	29·23	29·47	31·82	31·26	31·55
5	Kolába	·03	·10	·51	16·56	1·55	·76	·39	7·03	27·98	25·88	26·93	34·49	32·71	33·60
6	City of Bombay	·10	1·06	5·57	3·49	3·26	11·75	·82	13·42	35·59	45·96	39·47	53·77	66·36	58·57
	Central Registration District.														
7	Ahmednagar	...	·13	·13	10·57	3·54	3·86	·23	8·53	28·32	25·66	26·99	42·81	41·37	42·09
8	Poona	·00	·08	5·18	10·45	2·90	3·79	·32	7·32	30·98	29·91	30·04	41·57	39·29	40·44
9	Sholápur	...	·03	·87	17·30	4·49	1·03	·16	2·70	26·99	26·27	26·58	42·82	42·45	42·63
10	Sátára	·00	·04	1·51	8·76	3·16	·82	·35	4·94	20·62	19·12	19·58	44 47	44·32	44·39
11	Ratnágiri	...	·17	·11	13·12	1·46	1·68	·38	4·24	23·36	19·26	21·16	23·84	21·11	22·39
	Southern Registration District.														
12	Belgaum	·00	·16	4·35	5·11	2·64	2·13	·47	10·48	25·29	25·38	25·34	44·56	44·54	44·55
13	Dhárwár	...	·02	1·88	7·26	1·09	1·89	·33	11·83	24·33	24·21	24·30	40·65	40·23	40·45
14	Bijápur	·04	·26	9·41	2·98	2·53	·40	10·28	26·09	25·70	25·90	42·57	41·43	42·00
15	Kánara	1·10	·14	·16	15·79	2·86	·96	·39	12·55	33·33	34·07	33·95	32·45	31·32	31·90
	Gujarát Registration District.														
16	Surat	·01	...	·53	14·77	·49	6·76	·34	3·02	26·38	25·45	25·92	38·02	37·63	37·83
17	Broach	·07	·02	·12	23·26	·70	6·52	·34	6·82	37·04	36·65	36·85	39·16	41·23	40·07
18	Kaira	...	·00	1·28	11·79	1·35	9·26	·46	7·67	31·69	31·94	31·81	44·79	52·23	48·33
19	Panch Mahals	·00	...	·03	19·93	·19	·83	·46	3·18	23·70	25·56	24·62	25·42	26·27	25·84
20	Ahmedabad	...	·01	1·48	25·73	·60	4·45	·37	5·80	38·40	38·49	38·44	41·99	43·25	42·61
	Sind Registration District.														
21	Karáchi	1·09	·37	6·40	8·55	·37	1·12	·60	4·95	23·46	23·46	23·46	25·64	26·60	26·07
22	Hyderabad	·43	·07	·04	14·67	·59	·68	·30	·71	17·35	17·65	17·49	18·50	18·82	18·64
23	Thár and Párkar	·04	...	...	17·43	·04	·12	·41	·36	18·31	18·51	18·40	21·10	20·65	20·90
24	Lárkhána	...	·03	·02	17·36	·02	·05	·34	·69	17·84	19·33	18·52	23·00	23·72	23·33
25	Sukkur	...	·01	·01	20·72	·10	·14	·39	1·94	22·77	23·93	23·31	25·68	27·77	26·64
26	Upper Sind Frontier ...	...	·03	·01	15·94	·02	...	·21	·18	15·80	17·40	16·39	16·67	18·78	17·60
	Total for the Presidency...	·09	·14	1·48	13·17	2·21	2·96	·38	6·72	27·56	26·83	27·15	36·93	37·08	37·00

* Population according to the Census of 1906.

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the months of the year 1908.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	West Khándesh	1,237	1,035	1,195	1,290	945	766	844	1,519	1,484	1,466	1,688	1,671	15,140	1
2	East Khándesh	2,216	2,405	2,546	2,501	2,142	1,449	1,841	3,099	3,471	2,950	2,678	2,716	30,014	2
3	Násik	2,212	1,950	1,932	2,084	1,779	1,467	1,635	2,044	2,001	1,893	2,311	2,569	23,782	3
4	Thána	2,450	2,156	2,694	1,951	1,693	1,349	1,385	1,862	1,931	1,807	2,284	2,339	23,901	4
5	Kolába	1,817	1,354	1,586	1,308	1,167	948	1,150	1,443	1,331	1,393	1,461	1,713	16,811	5
6	City of Bombay	3,015	3,469	4,834	4,872	3,714	2,591	2,508	2,545	2,488	2,716	2,433	2,691	37,876	6
	Central Registration District.														
7	Ahmednagar	1,663	1,539	1,821	2,159	1,978	1,776	1,996	2,094	1,839	2,042	1,944	1,731	22,582	7
8	Poona	2,205	1,870	2,163	2,281	1,805	1,657	1,958	2,793	3,361	3,824	3,129	2,670	29,716	8
9	Sholápur	1,250	1,147	1,264	1,571	1,522	1,250	1,627	2,213	2,141	2,060	1,608	1,505	19,158	9
10	Sátára	2,192	1,624	1,736	1,578	1,482	1,218	1,580	1,995	2,240	2,311	2,344	2,153	22,453	10
11	Ratnágiri	2,343	2,118	2,106	2,025	1,936	1,675	2,048	2,220	1,898	1,876	2,002	2,460	24,707	11
	Southern Registration District.														
12	Belgaum	2,434	2,191	2,380	1,870	1,635	1,526	1,760	2,162	2,248	2,332	2,165	2,352	25,145	12
13	Dhárwár	2,365	2,118	2,308	2,176	1,928	1,694	1,837	2,121	2,340	2,570	2,728	2,349	27,034	13
14	Bijápur	1,517	1,350	1,375	1,408	1,472	1,327	1,620	1,858	1,745	1,905	1,822	1,647	19,046	14
15	Kánara	1,792	1,579	1,558	1,102	1,040	997	1,096	1,237	1,151	1,044	1,308	1,522	15,426	15
	Gujarát Registration District.														
16	Surat	1,482	1,504	1,954	1,480	1,222	1,140	1,066	1,312	1,200	1,246	1,373	1,526	16,505	16
17	Broach	779	965	1,167	992	841	689	689	883	808	935	927	1,094	10,749	17
18	Kaira	2,090	2,212	2,729	1,850	1,649	1,480	1,560	1,861	1,913	1,930	1,741	1,758	22,783	18
19	Panch Mahals	446	538	712	546	416	380	389	472	463	710	739	615	6,426	19
20	Ahmedabad...	3,283	3,674	3,921	2,808	1,932	1,550	1,552	2,151	2,344	2,314	2,382	2,655	30,577	20
	Sind Registration District.														
21	Karáchi	893	795	1,156	1,144	1,054	895	1,814	793	653	611	771	808	10,387	21
22	Hyderabad	2,188	1,665	1,585	1,120	1,054	1,080	217	1,144	1,113	1,411	1,905	1,867	17,284	22
23	Thar and Párkar	1,039	771	831	556	293	359	353	334	418	389	583	706	6,694	23
24	Lárkhána	1,517	1,210	1,285	913	862	782	673	682	606	1,041	1,350	1,232	12,153	24
25	Sukkur	1,504	1,003	992	715	804	674	573	707	748	1,411	1,646	1,360	12,137	25
26	Upper Sind Frontier ...	429	310	333	219	233	190	201	190	202	532	635	528	3,802	26
	Total for the Presidency.	46,088	42,552	48,143	42,527	36,658	30,909	33,972	41,734	42,142	44,724	45,909	46,477	501,838	
	Ratio of deaths per 1,000 in each month... ...	2·49	2·30	2·61	2·31	1·98	1·67	1·84	2·26	2·28	2·42	2·48	2·51	27·15	

ANNUAL FORM No. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	West Khándesh	2,704	2,332	1,977	1,953	291	301	160	149
2	East Khándesh	4,921	4,238	3,881	3,875	580	636	353	420
3	Násik	3,998	3,255	2,625	2,632	523	545	348	300
4	Thána	2,673	2,413	1,796	1,838	671	694	459	376
5	Kolába	2,145	1,709	1,293	1,262	368	370	234	195
6	City of Bombay	4,722	4,286	2,022	2,122	652	751	882	802
	Central Registration District.								
7	Ahmednagar	4,327	3,463	2,582	2,427	358	374	202	184
8	Poona	3,911	3,078	2,772	2,450	799	810	676	754
9	Sholápur	2,098	1,534	1,338	1,247	534	493	670	558
10	Sátára	2,371	2,363	1,991	1,942	571	554	479	516
11	Ratnágiri	2,121	1,815	1,660	1,685	501	485	333	296
	Southern Registration District.								
12	Belgaum	2,545	2,161	1,964	2,045	841	832	686	755
13	Dhárwár	3,171	2,626	2,504	2,538	872	929	568	555
14	Bijápur	2,474	1,967	2,113	2,038	509	516	267	271
15	Kánara	1,455	1,374	785	879	348	359	218	205
	Gujarát Registration District.								
16	Surat	2,244	2,028	1,662	1,708	331	401	215	212
17	Broach	1,886	1,649	1,591	1,526	201	202	84	93
18	Kaira	3,135	3,106	3,107	2,558	407	310	302	210
19	Panch Maháls	919	868	780	805	177	217	78	98
20	Ahmedabad	4,487	3,984	3,217	3,104	494	485	440	423
	Sind Registration District.								
21	Karáchi	1,392	1,277	619	592	300	284	257	241
22	Hyderabad	1,653	1,501	940	802	405	416	326	259
23	Thar and Párkar	611	585	283	245	146	120	135	97
24	Lárkhána	1,184	1,149	605	596	401	373	247	186
25	Sukkur	1,656	1,617	783	671	290	250	182	127
26	Upper Sind Frontier ...	438	397	244	223	140	136	83	70
	Total for the Presidency ...	65,741	56,775	45,134	43,763	11,710	11,843	8,884	8,352
	Population according to Census of 1901	207,605	202,164	921,002	940,545	1,344,614	1,286,495	1,235,171	1,001,501
	Ratios per 1,000 living ...	316·66	280·84	49·01	46·53	8·71	9·21	7·19	8·34

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1908.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	No
145	194	367	512	541	453	501	320	477	302	739	722	1
268	401	693	931	914	795	913	650	936	731	1,954	1,924	2
266	325	703	848	992	835	958	594	808	560	1,304	1,365	3
376	377	1,103	1,337	1,452	1,224	1,411	870	1,145	756	1,446	1,484	4
225	240	655	807	884	786	776	535	750	562	1,188	1,327	5
1,683	1,451	3,878	2,515	2,747	1,378	1,734	796	1,498	941	1,560	1,456	6
210	309	645	877	643	601	645	483	998	856	1,201	1,197	7
597	682	1,233	1,421	1,261	1,106	1,114	862	1,100	855	1,972	2,263	8
948	803	1,061	1,153	885	966	657	715	572	691	990	1,245	9
380	473	896	1,056	906	883	879	645	895	761	1,543	1,849	10
457	414	1,108	1,032	1,064	1,018	1,170	825	1,346	1,028	3,032	3,337	11
475	485	1,037	1,240	1,152	1,147	1,127	896	1,099	784	1,751	2,123	12
376	448	972	1,203	1,079	1,128	1,197	870	1,187	953	1,741	2,117	13
169	244	451	735	525	602	717	618	773	618	1,605	1,884	14
222	275	818	941	1,056	769	1,019	678	972	761	1,090	1,202	15
203	223	546	733	636	640	664	470	649	490	1,232	1,218	16
64	99	284	305	321	345	313	248	303	266	453	516	17
354	225	972	954	968	954	854	742	846	691	957	1,131	18
74	95	183	267	220	289	240	200	225	164	233	294	19
630	581	1,604	1,546	1,353	1,293	1,291	1,109	1,107	1,108	1,031	1,290	20
321	261	856	654	686	428	497	282	327	196	522	395	21
353	407	1,084	1,258	1,292	1,044	1,289	736	915	487	1,179	938	22
188	143	469	434	529	362	485	350	407	264	458	383	23
224	271	611	908	821	796	788	519	560	370	876	668	24
185	265	544	683	667	602	703	456	536	374	867	729	25
61	62	177	207	201	210	245	145	170	99	266	228	26
9,454	9,753	22,950	24,557	23,795	20,654	22,187	15,614	20,601	15,668	31,190	33,213	
779,647	696,954	1,657,754	1,614,771	1,485,004	1,326,932	970,540	904,730	570,008	543,887	381,534	444,739	
12·13	13·99	13·84	15·21	16·02	15·56	22·86	17·26	36·14	28·81	81·75	74·68	

ANNUAL FORM No. V.—DEATHS *registered according to* CLASSES

1	2	3						
		POPULATION ACCORDING TO CENSUS OF 1901.						
No.	Districts.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	West Khándesh	*26,614	428,341	3,197	331	255	10,916	469,654
2	East Khándesh	92,565	853,768	9,101	490	407	820	957,151
3	Násik	43,856	761,471	7,643	1,780	467	132	815,349
4	Thána...	36,257	724,418	2,484	42,106	5,238	329	810,832
5	Kolába	29,339	570,661	1,706	1,202	311	2,288	605,507
6	City of Bombay	*155,747	*508,608	*14,248	*29,645	*46,231	*5,996	*760,475
	Central Registration District.							
7	Ahmednagar	43,761	756,527	16,251	19,986	202	87	836,817
8	Poona	45,790	920,885	10,703	8,256	2,342	1,126	989,102
9	Sholápur	54,510	655,691	8,453	1,555	360	18	720,587
10	Sátára	40,888	1,085,398	18,483	975	230	56	1,146,030
11	Ratnágiri	82,825	1,077,745	2,328	4,929	29	19	1,167,875
	Southern Registration District.							
12	Belgaum	73,389	856,560	51,836	5,366	106	5	992,262
13	Dhárwár	141,528	954,431	12,336	4,046	153	118	1,112,612
14	Bijápur	84,416	646,768	3,321	866	29	...	735,400
15	Kánara	29,302	407,420	1,542	16,126	16	11	454,417
	Gujarát Registration District.							
16	Surat	54,191	551,027	11,785	957	12,516	6,406	636,882
17	Broach	63,408	195,922	3,254	685	3,127	25,333	291,729
18	Kaira	68,187	614,146	8,469	25,131	209	111	716,253
19	Panch Maháls	21,349	210,521	1,676	489	130	26,838	261,003
20	Ahmedabad	87,183	665,762	37,790	2,827	1,323	459	795,344
	Sind Registration District.							
21	Karáchi	344,516	93,083	126	2,650	1,841	534	442,750
22	Hyderabad	744,632	242,692	119	192	89	751	988,475
23	Thar and Párkar	211,309	151,726	657	5	4	168	363,869
24	Lárkhána	557,651	97,687	...	115	2	628	656,083
25	Sukkur	379,189	143,299	...	24	64	343	522,919
26	Upper Sind Frontier	209,192	22,765	19	2	...	7	231,985
	Total of the Presidency ...	3,726,594	14,197,322	227,530	170,736	75,681	83,499	18,481,362

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

* Population according to the Census of 1901.

in the BOMBAY PRESIDENCY *during the year 1908.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
658	14,468	6	3	3	2	15,140	24·72	33·78	1·88	9·06	11·76	·18	32·25
2,277	27,678	32	13	5	9	30,014	24·51	32·42	3·51	26·53	12·29	10·98	31·35
1,186	22,525	52	12	5	2	23,782	27·04	29·58	6·80	6·74	10·71	15·15	29·16
1,118	21,528	25	1,141	67	22	23,901	30·84	29·72	10·06	27·10	12·79	66·87	29·47
718	15,516	8	25	...	44	16,311	24·47	27·19	4·69	20·80	...	19·23	26·93
9,208	24,486	1,221	1,454	1,328	179	37,876	59·12	48·14	85·70	49·05	28·73	29·89	39·47
1,131	20,964	34	37	2	414	22,582	25·84	27·84	2·09	1·85	9·90	4,758·60	26·99
1,514	27,859	129	148	48	18	29,716	33·07	30·26	12·05	17·92	20·05	15·98	30·04
1,220	17,845	79	6	3	5	19,158	22·38	27·21	93·46	3·85	8·33	277·77	26·58
663	21,372	348	5	1	64	22,453	16·22	19·69	18·83	5·13	4 35	1,442·86	19·58
1,859	22,755	20	73	...	...	24,707	22·44	21·11	8·59	14·81	...	...	21·16
1,865	22,038	1,082	160	...	...	25,145	23·79	25·73	20·87	29·82	...	...	25·34
3,826	22,837	288	82	1	...	27,034	27·03	23·93	23·35	20·27	6·54	...	24·30
2,087	16,884	51	23	1	...	19,046	24·72	26·11	15·36	27·51	34·48	...	25·90
640	14,245	40	501	...	...	15,426	21·84	34·86	25·94	31·07	...	...	33·95
1,023	13,754	145	20	228	1,335	16,505	18·88	24·96	12·30	20·90	18·22	208·40	25·92
2,038	7,328	53	5	73	1,252	10,749	32·14	37·40	16·29	7·30	23·35	49·42	36·85
1,970	20,559	129	124	1	...	22,783	28·89	33·48	15·23	4·93	4·78	...	31·81
417	4,463	20	19	3	1,504	6,426	19·53	21·20	11·93	38·85	23·08	56·04	24·62
2,797	26,880	833	48	9	10	30,577	32·08	40·37	22·04	16·98	6·80	21·79	38·44
6,106	4,142	16	91	29	3	10,387	17·72	44·50	126·98	34·34	15·75	3·75	23·46
11,387	5,897	...	...	...	...	17,284	15·29	24·30	...	...	...	...	17·49
3,287	3,371	36	...	...	...	6,694	15·56	22·22	54·79	...	...	...	18·40
9,768	2,383	...	1	...	1	12,153	17·52	24·39	...	8·70	...	...	18·52
7,565	4,595	...	3	4	20	12,187	19·93	32·06	...	125·00	62·50	58·31	23·31
3,119	682	...	...	1	...	3,802	14·91	29·96	...	...	...	...	16·39
79,447	407,054	4,647	3,994	1,812	4,884	501,838	21·32	28·67	20·42	23·39	23·94	58·50	27·15

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	West Khándesh ...	434,006	...	33	21	7,621	2,651	1,028	1	1	55
2	East Khándesh ...	910,489	...	70	515	11,531	6,695	3,204	3	5	228
3	Násik	771,184	31	100	244	9,352	1,266	2,259	7	6	160
4	Thána	762,598	83	79	543	15,039	650	684	20	17	299
5	Kolába	581,621	18	63	266	9,874	878	434	5	12	157
	Central Registration District.										
6	Ahmednagar ...	781,862	...	81	100	8,345	2,850	2,469	3	5	143
7	Poona	821,538	2	33	3,056	9,483	1,938	2,792	6	4	238
8	Sholápur	589,042	...	12	226	10,167	2,165	346	5	8	54
9	Sátára	1,095,049	1	47	1,647	9,861	3,385	870	4	8	306
10	Ratnágiri	1,132,815	...	188	118	14,968	1,643	1,857	3	7	193
	Southern Registration District.										
11	Belgaum	936,131	4	87	3,853	4,867	2,447	2,004	19	27	354
12	Dhárwár	976,302	...	14	974	7,504	1,055	1,566	19	30	213
13	Bijápur	706,674	...	33	168	6,866	2,174	1,729	26	26	200
14	Kánara	426,825	448	64	60	6,963	1,243	414	12	18	134
	Gujarát Registration District.										
15	Surat	504,854	7	...	331	8,582	142	3,199	11	4	123
16	Broach	238,686	...	6	35	6,493	133	1,265	4	1	49
17	Kaira	646,099	...	3	818	7,729	866	5,818	9	9	197
18	Panch Maháls ...	226,115	...	...	7	4,850	24	159	5	5	56
19	Ahmedabad ...	571,357	...	5	633	15,332	151	1,213	11	7	132
	Sind Registration District.										
20	Karáchi	329,850	436	25	58	2,856	54	69	1	2	136
21	Hyderabad... ...	919,652	210	3	35	13,149	93	122	4	6	159
22	Thar and Párkar ...	358,970	13	...	...	6,208	16	19	1	3	57
23	Lárkhána	641,540	...	20	3	11,046	14	19	3	8	152
24	Sukkur	442,538	...	5	...	8,988	24	22	5	3	147
25	Upper Sind Frontier.	221,258	...	5	...	3,462	3	...	1	1	22
	Total of Districts ...	16,027,055	1,253	976	13,720	221,136	32,560	33,561	188	223	3,964
	B.—TOWNS.										
	West Khándesh District.										
1	Dhulia	24,726	...	88	...	158	120	102	...	...	6
2	Nandurbár... ...	10,922	...	...	...	176	48	10	...	...	2
	East Khándesh District.										
3	Jalgaon	15,874	...	...	109	72	193	75	...	...	8
4	Chopda	18,612	...	1	...	75	48	86	...	...	2
5	Nasirabad	12,176	...	...	176	89	156	84	...	...	...

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1908.*

RIES.		11	12	13										14
				RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
29	86	2,659	14,099	...	·08	·05	17·55	6·11	2·37	·19	6·13	32·48	41·61	1
22	258	6,363	28,636	...	·08	·57	12·67	7·35	3·52	·28	6·99	31·46		2
45	218	8,656	22,126	·04	·13	·32	12·13	1·64	2·93	·28	11·22	28·69	40·98	3
96	432	4,744	22,254	·11	·10	·72	19·72	·85	·89	·56	6·22	29·17	32·16	4
51	225	4,023	15,781	·03	·11	·44	16·98	1·51	·75	·38	6·92	27·13	33·81	5
34	185	6,912	20,942	...	·10	·13	10·67	3·65	3·20	·24	8·87	26·86	41·36	6
35	283	5,287	22,874	·00	·04	3·71	11·50	2·35	3·39	·34	6·41	27·74	36·70	7
3	70	1,088	14,044	...	·02	·38	17·26	3·67	·59	·12	1·80	23·84	40·69	8
71	389	5,471	21,671	·00	·04	1·50	9·01	3·09	·79	·36	5·00	19·79	44·34	9
231	434	4,791	23,999	...	·17	·10	13·21	1·45	1·64	·38	4·23	21·18	22·27	10
35	435	9,772	23,469	·00	·09	4·12	5·19	2·61	2·14	·47	10·44	25·07	44·61	11
27	289	11,089	22,491	...	·01	·99	7·69	1·08	1·60	·29	11·36	23·04	41·66	12
23	275	7,188	18,433	...	·05	·24	9·72	3·07	2·44	·39	10·17	26·08	42·29	13
11	175	5,421	14,797	1·05	·15	·16	16·32	2·91	·97	·41	12·70	34·66	32·60	14
31	169	1,151	13,581	·01	...	·66	17·00	·28	6·34	·33	2·28	26·90	35·57	15
15	69	1,085	9,086	...	·02	·15	27·20	·56	5·30	·29	4·55	38·07	39·89	16
81	296	4,864	20,394	...	·00	1·27	11·96	1·34	9·00	·46	7·53	31·56	47·81	17
38	104	558	5,702	...	...	·03	21·45	·11	·70	·46	2·47	25·22	24·04	18
66	216	1,144	18,694	...	·01	1·11	26·84	·26	2·12	·38	2·00	32·72	37·19	19
62	201	353	4,052	1·32	·08	·18	8·66	·16	·21	·61	1·07	12·29	15·97	20
112	281	304	14,197	·23	·00	·04	14·29	·10	·13	·31	·33	15·44	17·06	21
85	146	126	6,528	·04	...	...	17·29	·04	·05	·41	·35	18·19	20·60	22
60	223	346	11,671	...	·03	·00	17·22	·02	·03	·35	·54	18·19	22·90	23
18	173	77	9,289	...	·01	...	20·31	·05	·05	·39	·17	20·99	23·57	24
20	44	10	3,524	...	·02	...	15·65	·01	...	·20	·05	15·93	16·71	25
1,301	5,676	93,452	402,334	·08	·06	·86	13·80	2·03	2·09	·35	5·83	25·10	34·82	
1	7	286	761	...	3·56	...	6·39	4·85	4·13	·28	11·57	30·78	30·53	1
1	3	43	280	...	...	...	16·11	4·39	·92	·28	3·94	25·64	37·18	2
...	8	76	533	...	...	6·87	4·54	12·16	4·72	·50	4·78	33·57	Not available.	3
1	3	95	308	...	·05	...	4·03	2·57	4·62	·17	5·10	16·54	26·32	4
...	...	32	537	...	...	14·45	7·31	12·81	6·90	...	2·63	44·10	40·43	5

FORM No.

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Násik District.										
6	Násik	21,490	75	12	24	246	128	121	...	...	6
7	Yeola	16,559	...	6	2	148	35	97	...	...	2
8	Devláli Cantonment.	2,894	...	...	...	15	...	2	...	...	...
9	Málegaon do. ...	3,222	...	2	...	34	5	6	...	...	1
	Thána District.										
10	Thána	15,410	5	31	73	119	40	18	...	...	9
11	Kalyán	10,749	...	1	117	141	37	45	...	...	7
12	Bándra	22,075	...	6	106	67	63	67	2	...	11
	Kolába District.										
13	Panvel	10,152	...	...	2	63	28	26	1	1	3
14	Alibág	5,996	...	1	39	22	11	1	...	...	1
15	Mahád	7,738	...	...	...	71	19	1	...	...	3
16	Bombay City ...	959,537*	95	1,015	5,348	3,348	3,132	11,275	46	27	713
	Ahmednagar District.										
17	Ahmednagar ...	35,784	...	31	3	399	59	707	...	...	7
18	Sangamner... ...	13,801	...	...	1	78	50	31	...	...	...
19	Ahmednagar Cantonment.	5,370	...	...	1	20	5	19	...	...	...
	Poona District.										
20	Poona	120,543	...	46	1,376	672	835	647	...	...	24
21	Junnar	9,675	...	1	8	48	24	48	...	...	2
22	Poona Cantonment	26,549	...	2	377	98	54	220	...	...	6
23	Kirkee do. ...	10,797	...	...	309	39	13	40	...	...	4
	Sholápur District.										
24	Sholápur	74,898	...	...	10	1,553	745	247	8	4	22
25	Bársi	24,242	...	3	213	363	68	71	...	1	4
26	Pandharpur ...	32,405	...	13	176	383	255	81	2	1	7
	Sátára District.										
27	Sátára	25,493	...	...	83	122	189	42	...	1	4
28	Wái	13,989	...	...	5	26	17	17	...	...	1
29	Karád	11,492	...	...	1	32	36	13	...	...	4
	Ratnágiri District.										
30	Vengurla	19,018	...	11	5	210	20	79	...	...	3
31	Ratnágiri	16,042	...	5	...	137	40	25	...	...	2

* Population according to the Census of 1906.

VI—*continued.*

RIES.		11	12	13									14
				Ratio of Deaths per 1,000 of Population.							From all Causes.		
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
1	7	469	1,082	3·49	·55	1·12	11·45	5·96	5·63	·32	21·82	50·34	71·19	6
...	2	172	462	...	·36	·12	8·94	2·11	5·86	·12	10·39	27·90	54·23	7
...	...	21	38	...	...	...	5·18	...	·70	...	7·25	13·13	21·42	8
...	1	26	74	...	·62	...	10·55	1·55	1·86	·31	8·07	22·96	47·18	9
1	10	233	529	·32	2·01	4·74	7·72	2·60	1·17	·65	15·12	34·33	38·13	10
...	7	119	467	...	·10	10·88	13·12	3·44	4·19	·65	11·07	43·45	43·44	11
...	13	329	651	...	·27	4·80	3·03	2·86	3·04	·59	14·90	29·49	Not available.	12
...	5	96	220	...	...	·20	6·20	2·76	2·56	·49	9·46	21·67	32·70	13
...	1	60	135	...	·17	6·50	3·67	1·83	·17	·17	10·00	22·51	26·35	14
...	3	81	175	...	...	...	9·18	2·45	·13	·39	10·47	22·62	24·94	15
4	790	12,875	37,876	·10	1·06	5·57	3·49	3·26	11·75	·82	13·42	39·47	58·57	16
1	8	101	1,308	...	·87	·08	11·15	1·65	19·76	·22	2·82	36·55	62·71	17
...	...	106	266	...	...	·07	5·65	3·62	2·25	...	7·68	19·27	40·00	18
...	...	21	66	...	...	·19	3·72	·93	3·54	...	3·91	12·29	15·27	19
...	24	1,403	5,003	...	·38	11·41	5·57	6·83	5·37	·20	11·64	41·41	67·45	20
1	3	89	221	...	·10	·83	4·96	2·48	4·96	·31	9·20	22·84	23·77	21
1	7	369	1,127	...	·08	14·20	3·70	2·04	8·29	·27	13·87	42·45	41·84	22
...	4	86	491	...	...	28·62	3·61	1·20	3·70	·37	7·97	45·47	34·82	23
1	35	493	3,083	...	...	·13	20·72	9·95	3·30	·47	6·59	41·16	54·80	24
...	5	209	932	...	·12	8·78	14·97	2·81	2·93	·21	8·62	38·44	38·78	25
...	10	181	1,099	...	·40	5·42	11·82	7·87	2·50	·31	5·59	33·91	55·71	26
...	5	118	559	...	....	3·26	4·79	7·41	1·65	·20	4·62	21·93	44·63	27
...	1	47	113	...	...	·35	1·86	1·22	1·22	·07	3·36	8·08	54·33	28
1	5	23	110	...	...	·09	2·78	3·13	1·13	·43	2·00	9·56	39·91	29
1	4	106	435	...	·58	·26	11·04	1·05	4·16	·21	5·57	22·87	21·03	30
...	2	64	273	...	·31	...	8·54	2·49	1·56	·12	3·99	17·01	32·79	31

FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Belgaum District.										
32	Belgaum	26,237	...	20	348	80	41	43	...	...	10
33	Gokák	9,860	...	32	...	51	43	10	1	5	2
34	Athni	11,107	...	...	40	60	67	42	...	...	6
35	Belgaum Cantonment.	8,927	...	15	79	15	18	17	1	...	3
	Dhárwár District.										
36	Dhárwár	30,593	...	3	921	248	36	111	...	4	23
37	Hubli	60,214	...	...	105	208	80	337	1	4	24
38	Gadag-Bettigeri ...	30,652	...	...	90	77	34	60	2	2	7
39	Ránebennur ...	14,851	...	...	...	39	12	30	2	2	10
	Bijápur District.										
40	Bijápur	23,776	...	...	24	22	10	120	2	...	13
41	Kaládgi	4,950	...	...	...	31	11	9	...	1	...
	Kánara District.										
42	Kárwár	16,774	50	...	1	121	19	5	...	...	3
43	Kumta	10,818	2	...	...	89	38	15	...	...	2
	Surat District.										
44	Surat	119,171	...	...	...	735	165	1,019	...	...	36
45	Bulsár	12,857	...	...	9	89	7	88	...	...	5
	Broach District.										
46	Broach	42,862	20	...	1	198	64	505	...	3	23
47	Jambusar	10,181	...	...	...	95	8	131	...	...	3
	Kaira District.										
48	Kaira	10,313	...	...	47	93	4	146	...	...	6
49	Nadiád	31,435	...	...	...	380	34	383	2	2	9
50	Borsad	13,001	...	...	27	90	48	173	...	...	3
51	Kapadvanj	15,405	...	...	27	155	17	112	...	...	3
	Panch Maháls District.										
52	Godhra	20,898	1	...	2	102	14	39	...	...	11
53	Dohad	13,990	...	...	...	251	12	18	...	...	5
	Ahmedabad District.										
54	Ahmedabad ...	181,774	...	...	507	4,395	279	2,087	1	...	64
55	Gogha	4,798	...	...	...	49	8	45	...	...	1
56	Viramgám	18,952	...	...	1	337	15	131	...	...	4
57	Dholka	14,971	...	...	34	325	27	67	...	...	5
58	Ahmedabad Cantonment.	3,492	...	...	...	33	1	...	...	...	2

VI—*continued.*

		11	12	13										14
BIES.				Ratio of Deaths per 1,000 of Population.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
1	11	272	815	...	·76	13·26	3·04	1·56	1·64	·42	10·36	31·06	40·40	32
...	8	100	244	...	3·25	...	5·17	4·36	1·01	·81	10·14	24·74	40·37	33
1	7	143	359	...	...	3·60	5·40	6·03	3·78	·63	12·88	32·32	66·83	34
...	4	110	258	...	1·68	8·85	1·68	2·02	1·90	·45	12·32	28·90	27·67	35
...	27	468	1,814	...	·10	30·10	8·10	1·18	3·63	·88	15·30	59·29	35·30	36
...	29	897	1,656	...	...	1·74	3·45	1·33	5·60	·48	14·90	27·50	36·57	37
...	11	452	724	...	...	2·94	2·51	1·10	1·96	·36	14·75	23·62	41·20	38
...	14	254	349	...	...	...	2·63	·81	2·02	·94	17·10	23·50	55·13	39
...	15	327	580	...	...	1·01	·93	·42	5·05	·63	13·75	21·79	32·68	40
...	1	43	95	...	...	...	6·26	2·22	1·82	·20	8·69	19·19	45·05	41
1	4	119	319	2·98	...	·06	7·21	1·13	·30	·24	7·09	19·01	17·88	42
...	2	164	310	·18	...	...	8·23	3·51	1·39	·18	15·16	28·66	26·53	43
3	39	672	2,630	...	...	...	6·17	1·38	8·55	·33	5·64	22·07	48·34	44
2	7	94	294	...	...	·70	6·92	·55	6·85	·54	7·31	22·87	28·81	45
1	27	580	1,395	·47	...	·09	4·62	1·49	11·78	·63	13·53	32·54	42·24	46
1	4	30	268	...	...	...	9·33	·78	12·87	·39	2·95	26·32	47·05	47
2	8	61	359	...	...	4·56	9·02	·39	14·16	·77	5·91	34·81	46·58	48
2	15	363	1,175	...	...	...	12·09	1·08	12·18	·48	11·55	37·38	58·25	49
...	3	76	417	...	...	2·08	6·92	3·69	13·31	·23	5·85	32·08	48·07	50
...	3	124	438	...	...	1·75	10·06	1·10	7·27	·20	8·05	28·43	51·05	51
1	12	132	302	·05	...	·09	4·88	·67	1·87	·57	6·32	14·45	32·95	52
...	5	136	422	...	...	...	17·94	·86	1·28	·36	9·72	30·16	44·30	53
2	67	2,908	10,243	...	...	2·80	24·26	1·54	11·52	·37	16·05	56·54	57·56	54
...	1	36	139	...	...	...	10·21	1·67	9·38	·21	7·51	28·98	50·61	55
1	5	277	766	...	...	·05	17·78	·79	6·92	·26	14·62	40·42	56·70	56
2	7	238	638	...	...	2·27	21·71	1·80	4·47	·47	15·90	46·62	56·21	57
...	2	1	37	...	...	...	8·02	·24	...	·49	·2	8·99	13·22	58

FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*concluded.*										
	Karáchi District.										
59	Karáchi	112,900	47	139	2,777	931	112	426	3	...	60
	Hyderabad District.										
60	Hyderabad ...	68,823	211	63	4	1,351	493	551	...	...	20
	Thar and Párkar District.										
61	Umarkot	4,869	...	...	...	134	...	24	...	...	2
	Lárkhána District.										
62	Lárkhána	14,543	...	2	12	345	1	12	...	...	2
	Sukkur District.										
63	Shikárpur	49,491	...	...	2	1,219	16	21	...	...	12
64	Sukkur	30,890	...	...	1	627	13	32	...	...	18
	Upper Sind Frontier District.										
65	Jacobabad	10,727	...	1	2	237	1	...	...	...	5
	Total of Towns ...	2,653,269	506	1,550	13,625	22,236	8,221	21,110	74	58	1,266
	Total for the Presidency ...	18,481,362	1,759	2,526	27,845	243,372	40,781	54,671	262	281	5,230

VI—*concluded.*

		11	12	13										14
RIES.				Ratio of Deaths per 1,000 of Population.								From all Causes.		
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
...	63	1,840	6,335	·42	1·23	24·59	8·25	·90	3·77	·56	16·30	56·11	55·57	59
...	20	394	3,087	3·07	·92	·06	19·63	7·16	8·01	·29	5·72	44·85	39·77	60
...	2	6	166	...	...	...	27·35	...	4·90	·41	1·22	33·88	43·07	61
...	2	108	482	...	·14	·83	23·71	·07	·83	·14	7·43	33·14	42·43	62
...	12	772	2,042	...	...	·04	24·63	·32	·42	·24	15·60	41·26	48·61	63
...	18	165	856	...	...	·03	20·30	·42	1·04	·58	5·34	27·71	35·48	64
...	5	32	278	...	·09	·19	22·09	·09	...	·47	2·98	25·92	35·89	65
35	1,433	30,823	99,504	·19	·58	5·13	8·38	3·10	7·96	·54	11·62	37·50	50·92	
1,336	7,109	124,275	501,838	·09	·14	1·48	13·17	2·21	2·96	·38	6·72	27·15	37·00	

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1908.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Cholera were reported.	Number in each District.	Number from which deaths from Cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	West Khándesh ...	10	...	1,186	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·08	1
2	East Khándesh ...	16	...	1,459	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		2
3	Násik	16	8	1,649	8	...	...	...	...	4	...	1	1	...	...	...	100	57	49	106	·14	·12	·13	1·24	3
4	Thána	12	4	1,633	9	...	...	...	10	15	7	29	26	1	...	...	...	49	39	88	·12	·10	·11	1·25	4
5	Kolába	11	1	1,484	1	...	...	...	...	18	...	...	...	...	...	...	...	4	14	18	·01	·05	·03	2·00	5
6	City of Bombay ...	1	1	1	1	2	2	3	10	6	2	3	5	3	1	...	18	60	35	95	·10	·09	·10	·48	6
	Central Registration District.																								
7	Ahmednagar	14	...	1,355	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·02	7
8	Poona	12	2	1,191	2	...	...	...	...	...	...	1	1	...	...	...	...	2	...	2	·00	...	·00	2·07	8
9	Sholápur	10	...	719	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·18	9
10	Sátára	15	1	1,345	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	...	·00	·00	1·18	10
11	Ratnágiri	10	...	1,308	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·07	11
	Southern Registration District.																								
12	Belgaum	11	2	1,077	2	...	1	...	...	...	...	...	...	...	2	...	1	4	...	4	·01	...	·00	1·04	12
13	Dhárwár	17	...	1,302	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·70	13
14	Bijápur... ...	10	...	1,118	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·61	14
15	Kánara...	13	9	1,289	77	47	87	107	29	21	5	4	30	5	2	02	61	221	279	500	·93	1·28	1·10	·19	15
	Gujarát Registration District.																								
16	Surat	10	1	778	1	...	...	...	...	...	...	...	...	7	...	...	...	3	4	7	·01	·01	·01	·14	16
17	Broach...	8	1	410	1	...	...	...	...	...	...	...	...	...	...	...	20	10	10	20	·07	07	.07	·05	17
18	Kaira	11	...	609	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·00	18
19	Panch Mahális ...	7	1	693	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	·00	...	·00	·08	19
20	Ahmedabad	12	...	874	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·06	20
	Sind Registration District.																								
21	Karáchi	11	5	633	66	...	...	...	...	27	228	150	61	17	...	...	...	281	202	483	1·14	1·03	1 09	·16	21
22	Hyderabad	14	7	1,412	25	...	...	...	...	...	85	222	110	4	...	...	...	234	187	421	·43	42	·43	·05	22
23	Thar and Párkar ...	12	2	669	3	...	...	...	...	...	...	6	7	...	...	...	...	12	1	13	·05	·01	·04	·01	23
24	Lárkhána	11	...	713	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·35	24
25	Sukkur...	10	...	611	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·33	25
26	Upper Sind Frontier .	5	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·12	26
	Total for the Presidency.	289	43	25,909	198	49	90	111	49	91	328	416	241	37	5	102	240	933	821	1,759	·10	·09	·09	·80	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1908.*

1	2	3		4		5												6			7		8			9	10
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			NUMBER OF THESE DEATHS AMONG CHILDREN.		RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	No.
		Number in each District.	Number from which deaths from Smallpox were reported.	Number in each District.	Number from which deaths from Smallpox were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Under 1 year.	1 to 10 years.	Male.	Female.	Total.		
	Western Registration District.																										
1	West Khándesh ...	10	7	1,186	18	...	...	...	8	5	5	1	4	2	2	27	72	48	73	121	41	62	·20	·32	·26	1·29	1
2	East Khándesh ...	16	4	1,459	12	...	...	...	...	1	...	...	2	...	3	17	48	37	34	71	31	39	·08	·07	·08		2
3	Násik	16	13	1,649	37	2	1	12	15	10	6	7	8	5	4	11	39	70	50	120	42	72	·17	·12	·14	·41	3
4	Thána	12	11	1,633	28	1	1	1	8	16	16	23	10	11	7	8	15	48	69	117	25	60	·11	·18	·14	·80	4
5	Kolába	11	9	1,484	20	...	1	5	7	5	4	12	2	2	6	8	12	34	30	64	17	37	·11	·10	·10	·33	5
6	City of Bombay ...	1	1	1	1	37	106	243	227	190	89	56	28	9	11	5	14	591	424	1,015	236	220	·98	1·18	1·06	1·19	6
	Central Registration District.																										
7	Ahmednagar	14	9	1,355	33	5	14	35	22	7	...	8	7	2	2	3	7	65	47	112	50	56	·16	·11	·13	·17	7
8	Poona	12	9	1,191	24	...	...	7	11	7	6	10	7	4	3	7	21	44	38	82	22	50	·09	·08	·08	·25	8
9	Sholápur	10	7	719	11	4	4	3	4	2	6	...	1	...	...	...	4	14	14	28	3	11	·03	·03	·03	·24	9
10	Sátára	15	10	1,345	29	...	...	8	8	8	3	2	4	4	6	7	2	32	15	47	21	12	·06	·03	·04	·04	10
11	Ratnágiri	10	6	1,308	66	5	13	20	38	31	32	24	13	8	5	6	9	120	84	204	44	82	·22	·14	·17	·13	11
	Southern Registration District.																										
12	Belgaum	11	10	1,077	36	33	22	47	20	9	6	4	...	3	3	1	6	77	77	154	53	56	·15	·16	·16	·09	12
13	Dhárwar...	17	7	1,302	11	4	1	2	2	2	1	...	1	3	1	...	...	9	8	17	6	5	·02	·01	·02	·17	13
14	Bijápur	10	5	1,118	9	...	3	11	6	1	6	...	1	...	...	4	5	17	16	33	3	25	·05	·04	·04	·24	14
15	Kánara	13	10	1,289	25	13	11	2	...	2	6	8	6	9	5	2	...	42	22	64	8	13	·18	·10	·14	·45	15
	Gujarát Registration District.																										
16	Surat	10	...	778	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	·12	16
17	Broach	8	3	410	3	...	...	...	3	3	...	...	...	...	...	...	...	4	2	6	1	5	·03	·01	·02	·16	17
18	Kaira	11	1	609	1	...	...	...	3	...	...	...	...	...	...	...	...	1	2	3	3	...	·00	·01	·00	·10	18
19	Panch Mahals	7	...	693	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·17	19
20	Ahmedabad	12	3	874	4	...	1	4	...	...	...	...	...	...	...	...	...	1	4	5	...	2	·00	·01	·01	·29	20
	Sind Registration District.																										
21	Karáchi	11	6	633	10	28	43	40	27	15	7	2	2	...	...	...	...	87	77	164	41	44	·35	·30	·37	·26	21
22	Hyderabad	14	2	1,412	2	...	3	3	15	17	17	11	...	...	...	...	...	42	24	66	7	34	·03	·05	·07	·20	22
23	Thar and Párkar ...	12	...	669	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·10	23
24	Lárkhána...	11	5	713	6	...	2	1	4	2	7	4	...	...	1	...	...	10	12	22	8	10	·03	·04	·03	·04	24
25	Sukkur	10	1	611	2	...	1	...	1	...	...	...	...	...	...	...	3	1	4	5	2	3	·00	·02	·01	·23	25
26	Upper Sind Frontier ...	5	2	391	3	1	...	...	...	2	...	...	...	...	...	3	...	1	5	6	2	2	·01	·05	·03	·06	26
	Total for the Presidency.	289	145	25,909	396	133	227	444	419	335	217	172	97	62	58	105	257	1,395	1,131	2,526	666	900	·15	·13	·14	·32	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVERS *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1908.*

No.	Districts.	Circles of Registration. Number in each District.	Circles of Registration. Number from which deaths from fevers were reported.	Villages. Number in each District.	Villages. Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Ratio of Deaths per 1,000 of Population. Male.	Ratio of Deaths per 1,000 of Population. Female.	Ratio of Deaths per 1,000 of Population. Total.	Mean ratio per 1,000 for previous five years.	No.
	Western Registration District.																								
1	West Khándesh ...	10	10	1,186	980	594	513	609	586	418	319	406	763	804	876	1,085	982	4,062	3,893	7,955	17·13	16·73	16·94	13·25	1
2	East Khándesh ...	16	16	1,459	1,311	703	750	890	925	796	501	619	1,124	1,565	1,369	1,318	1,202	5,893	5,874	11,767	12·16	12·42	12·29		2
3	Násik	16	16	1,649	1,466	1,001	863	834	809	674	519	547	718	723	763	1,077	1,267	5,068	4,727	9,795	12·28	11·73	12·01	13·59	3
4	Thána	12	12	1,633	1,536	1,660	1,489	1,760	1,231	1,012	793	743	1,038	1,139	1,223	1,614	1,664	7,988	7,378	15,366	18·93	18·97	18·95	18·29	4
5	Kolába	11	11	1,484	1,360	963	899	1,058	814	697	548	644	853	804	791	892	1,067	5,132	4,898	10,030	16·85	16·26	16·56	17·98	5
6	City of Bombay ...	1	1	1	1	316	309	292	255	225	214	230	265	291	398	308	245	2,125	1,223	3,348	3·54	3·41	3·49	3·76	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,355	1,238	665	603	722	966	779	535	736	750	647	771	899	769	4,617	4,225	8,842	11·12	10·06	10·57	11·43	7
8	Poona	12	12	1,191	1,030	879	697	854	978	793	685	771	973	902	914	954	940	5,418	4,922	10,340	10·87	10·04	10·45	13·67	8
9	Sholápur	10	10	719	690	762	728	877	1,228	1,150	962	1,244	1,183	840	1,493	1,137	862	6,332	6,134	12,466	17·46	16·11	17·30	12·60	9
10	Sátára	15	15	1,345	1,226	890	728	880	782	746	595	740	807	859	914	1,106	994	5,141	4,900	10,041	9·04	8·49	8·76	11·11	10
11	Ratnágiri	10	10	1,308	1,284	1,434	1,355	1,442	1,353	1,167	991	1,213	1,276	1,130	1,188	1,246	1,515	7,723	7,592	15,315	14·11	12·56	13·12	11·91	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	711	451	490	563	457	433	360	396	341	325	331	440	472	2,573	2,500	5,073	5·13	5·09	5·11	6·36	12
13	Dhárwár	17	17	1,302	1,186	841	731	882	765	581	508	488	521	501	605	778	875	4,070	4,006	8,076	7·26	7·26	7·26	8·39	13
14	Bijápur	10	10	1,118	991	473	424	510	551	624	493	580	640	561	679	771	613	3,401	3,518	6,919	9·24	9·58	9·41	9·44	14
15	Kánara	13	13	1,289	1,076	864	794	733	583	527	401	476	570	516	633	509	677	3,556	3,617	7,173	15·06	16·56	15·79	14·69	15
	Gujarát Registration District.																								
16	Surat	10	10	778	740	753	835	1,178	946	728	601	541	721	666	743	828	866	4,727	4,679	9,406	14·88	14·66	14·77	16·89	16
17	Broach	8	8	410	390	449	579	696	617	539	430	440	569	516	684	613	634	3,453	3,333	6,786	23·25	23·27	23·26	21·30	17
18	Kaira	11	11	609	571	826	814	1,127	759	613	505	479	624	625	725	639	711	4,501	3,946	8,447	11·98	10·58	11·79	12·78	18
19	Panch Mahals ...	7	7	693	570	350	431	564	423	305	283	304	366	376	633	655	510	2,532	2,671	5,203	19·18	20·71	19·93	16·15	19
20	Ahmedabad ...	12	12	874	839	2,229	2,299	2,354	1,760	1,308	1,071	1,029	1,438	1,537	1,712	1,774	1,960	10,563	9,908	20,471	25·91	25·55	25·73	28·48	20
	Sind Registration District.																								
21	Karáchi	11	11	633	633	497	326	325	208	220	234	258	247	306	342	423	401	2,694	1,693	3,787	8·50	8·62	8·55	12·43	21
22	Hyderabad ...	14	14	1,412	1,412	1,944	1,488	1,378	975	870	783	745	822	924	1,241	1,685	1,635	8,024	6,476	14,500	14·75	14·57	14·67	15·74	22
23	Thar and Párkar...	12	12	669	669	1,039	747	816	545	275	330	318	285	398	375	565	649	3,481	2,861	6,342	17·17	17·75	17·43	20·04	23
24	Lárkhána	11	11	713	713	1,437	1,143	1,237	870	811	716	594	612	544	980	1,293	1,155	5,922	5,469	11,391	16·72	18·11	17·36	21·63	24
25	Sukkur	10	10	611	611	1,381	865	895	643	706	576	448	601	655	1,296	1,563	1,205	5,730	5,104	10,834	20·35	21·15	20·72	23·16	25
26	Upper Sind Frontier	5	5	391	391	417	309	330	211	222	181	185	179	194	524	625	323	1,973	1,726	3,699	15·20	16·90	15·94	16·44	26
	Total for the Presidency ...	289	289	25,909	23,575	23,343	21,218	23,806	20,245	17,227	14,234	15,174	18,286	18,348	22,003	24,796	24,192	126,099	117,273	243,372	13·23	13·2	13·17	13·98	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1908.*

No.	Districts.	Circles of Registration. Number in each District.	Circles of Registration. Number from which deaths from Dysentery and Diarrhœa were reported.	Villages. Number in each District.	Villages. Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Ratio of Deaths per 1,000 of Population. Male.	Ratio of Deaths per 1,000 of Population. Female.	Ratio of Deaths per 1,000 of Population. Total.	Mean ratio per 1,000 for previous five years.	No.
	Western Registration District.																								
1	West Khándesh ...	10	10	1,186	692	325	272	311	437	332	282	154	153	110	67	233	133	1,558	1,261	2,819	6·57	5·42	6·02	9·79	1
2	East Khándesh ...	16	16	1,459	1,093	594	574	649	791	757	498	620	737	737	470	309	356	3,900	3,192	7,092	8·05	6·54	7·39		2
3	Násik	16	16	1,649	492	65	52	66	71	67	66	97	143	132	73	276	326	805	629	1,434	1·95	1·56	1·76	4·68	3
4	Thána	12	12	1,633	278	93	63	77	53	70	32	70	117	66	46	52	51	476	314	790	1·12	·80	·97	1·39	4
5	Kolába... ...	11	11	1,484	407	74	75	68	68	70	58	94	152	70	59	54	94	533	403	936	1·75	1·33	1·55	2·81	5
6	City of Bombay ...	1	1	1	1	290	295	306	263	266	192	256	303	242	255	193	271	1,767	1,365	3,132	2·94	3·80	3·26	4·28	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,355	784	152	108	209	249	271	218	336	395	339	283	212	192	1,599	1,365	2,964	3·83	3·25	3·54	6·08	7
8	Poona	12	12	1,191	551	218	186	222	199	187	208	315	378	341	227	173	210	1,625	1,239	2,864	3·27	2·52	2·90	5·23	8
9	Sholápur	10	10	719	478	211	219	196	176	197	176	254	580	690	237	128	169	1,680	1,553	3,233	4·63	4·34	4·49	5·60	9
10	Sátára	15	15	1,345	772	272	230	227	288	272	201	291	418	507	391	263	267	1,889	1,738	3,627	3·32	3·01	3·16	4·60	10
11	Ratnágiri	10	10	1,308	633	332	271	144	90	91	75	126	173	106	66	95	134	960	743	1,703	1·56	1·19	1·46	2·20	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	605	209	156	157	157	221	188	275	283	310	248	198	214	1,284	1,332	2,616	2·56	2·71	2·64	4·03	12
13	Dhárwár	17	17	1,302	370	93	82	81	77	104	103	125	126	122	112	94	93	615	602	1,217	1·09	1·09	1·09	1·60	13
14	Bijápur	10	10	1,118	561	117	122	91	87	124	118	237	336	309	285	217	152	1,048	1,147	2,195	2·85	3·12	2·98	3·60	14
15	Kánara	13	13	1,289	346	133	99	96	81	61	79	85	119	134	150	122	136	749	551	1,300	3·17	2·52	2·86	1·95	15
	Gujarát Registration District.																								
16	Surat	10	10	778	71	23	41	20	21	29	29	35	36	29	20	15	16	166	148	314	·52	·46	·49	·62	16
17	Broach... ...	8	8	410	63	9	6	7	19	15	23	22	35	24	13	13	19	107	98	205	·72	·63	·70	·56	17
18	Kaira	11	11	609	210	49	54	78	67	67	78	105	128	142	85	63	53	558	411	969	1·49	1·20	1·35	1·01	18
19	Panch Mahals ...	7	7	693	23	3	3	8	2	3	2	8	5	7	1	1	7	29	21	50	·22	·16	·19	·17	19
20	Ahmedabad ...	12	12	874	59	27	27	38	40	36	29	40	74	61	35	35	39	235	246	481	·68	·63	·60	·43	20
	Sind Registration District.																								
21	Karáchi	11	8	633	25	6	5	6	10	7	17	27	35	21	9	7	16	100	66	166	·41	·34	·37	·41	21
22	Hyderabad	14	14	1,412	27	51	54	57	35	36	41	50	43	52	45	58	64	364	282	586	·56	·63	·59	·40	22
23	Thar and Párkar ...	12	7	669	10	2	1	...	...	2	1	2	1	...	3	1	3	9	7	16	·01	·04	·02	·05	23
24	Lárkhána	11	6	713	11	1	7	...	3	1	...	...	2	...	1	...	...	10	5	15	·03	·02	·02	·06	24
25	Sukkur...	10	7	611	7	5	7	3	2	8	3	3	5	1	2	8	6	38	15	53	·13	·06	·10	·02	25
26	Upper Sind Frontier	5	3	391	3	1	...	1	...	...	...	1	...	...	...	...	1	3	1	4	·02	·01	·02	·07	26
	Total for the Presidency ...	289	271	25,909	8,562	3,365	3,009	3,118	3,286	3,294	2,717	3,682	4,777	4,552	3,183	2,825	3,027	22,047	18,734	40,781	2·31	2·09	2·21	3·12	

ANNUAL FORM NO. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1908.*

1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	West Khándesh...	10	10	1,186	407	181	143	157	96	53	42	47	65	68	74	91	123	655	485	1,140	2·76	2·08	2·43	3·32	1
2	East Khándesh ...	16	16	1,459	806	340	394	411	272	179	135	189	236	282	259	329	393	1,845	1,604	3,449	3·81	3·41	3·60		2
3	Násik ...	16	16	1,649	822	312	283	274	244	140	113	133	197	169	163	196	248	1,204	1,281	2,485	2·92	3·18	3·05	3·36	3
4	Thána ...	12	12	1,633	258	95	78	100	66	48	66	40	69	82	59	51	60	461	353	814	1·09	·91	1·00	1·10	4
5	Kolába ...	11	11	1,484	244	50	39	40	32	28	28	26	25	69	33	41	46	260	202	462	·85	·67	·76	·92	5
6	City of Bombay...	1	1	1	1	1,106	1,120	1,156	1,018	1,005	909	783	747	796	858	813	957	5,965	5,308	11,273	9·93	14·80	11·75	12·54	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,355	817	288	268	345	265	274	226	272	255	212	297	257	267	1,616	1,610	3,226	3·88	3·83	3·86	4·34	7
8	Poona ...	12	12	1,191	627	279	282	259	370	277	306	397	345	274	225	284	349	1,988	1,759	3,747	3·99	3·58	3·79	3·65	8
9	Sholápur ...	10	10	719	203	85	77	54	48	48	25	30	75	118	75	46	64	353	392	745	·97	1·09	1·03	1·89	9
10	Sátára ...	15	15	1,345	326	75	77	94	66	44	43	46	51	123	100	105	118	438	504	942	·77	·87	·82	·86	10
11	Ratnágiri ...	10	10	1,368	661	193	185	207	134	114	117	142	194	151	135	153	236	1,056	905	1,961	1·92	1·46	1·68	1·95	11
	Southern Registration District.																								
12	Belgaum ...	11	11	1,077	623	236	203	241	198	142	116	133	158	145	169	152	233	1,093	1,023	2,116	2·18	2·08	2·13	2·59	12
13	Dhárwár ...	17	17	1,302	563	224	201	202	184	153	107	131	133	164	186	200	219	970	1,134	2,104	1·73	2·05	1·89	2·27	13
14	Bijápur ...	10	10	1,118	601	203	177	194	137	129	106	123	126	116	151	170	196	956	902	1,858	2·59	2·45	2·53	2·80	14
15	Kánara ...	13	13	1,289	280	54	40	48	24	39	29	31	32	24	40	30	43	262	172	434	1·11	·79	·96	·86	15
	Gujarát Registration District.																								
16	Surat ...	10	10	778	580	404	430	501	362	332	345	231	243	295	310	337	416	2,336	1,970	4,306	7·35	6·17	6·76	9·15	16
17	Broach ...	8	8	410	252	157	210	240	161	155	121	113	145	128	147	142	182	1,035	866	1,901	6·97	6·05	6·52	7·32	17
18	Kaira ...	11	11	609	523	596	650	722	517	501	495	508	583	561	517	485	507	3,598	3,034	6,632	9·58	8·91	9·26	9·67	18
19	Panch Mahals ...	7	7	693	84	15	21	16	21	37	16	13	13	17	5	24	18	138	78	216	1·05	·60	·83	·69	19
20	Ahmedabad ...	12	11	874	266	415	447	255	263	245	177	178	334	358	252	281	343	1,927	1,616	3,543	4·73	4·17	4·45	4·56	20
	Sind Registration District.																								
21	Karáchi ...	11	3	633	14	66	28	25	26	32	40	42	44	50	41	50	51	275	220	495	1·12	1·12	1·12	1·48	21
22	Hyderabad ...	14	14	1,412	24	58	66	54	40	47	43	59	57	46	56	65	82	284	389	673	·52	·88	·68	·76	22
23	Thar and Párkar.	12	7	669	7	22	3	5	2	...	1	1	2	2	4	...	1	32	11	43	·16	·07	·12	·07	23
24	Lárkhána ...	11	9	713	10	7	4	2	1	8	3	1	...	1	3	...	1	22	9	31	·06	·03	·05	·05	24
25	Sukkur ...	10	6	611	7	5	11	8	5	4	9	3	4	4	4	5	13	55	20	75	·20	·08	·14	·30	25
26	Upper Sind Frontier ...	5	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·01	26
	Total for the Presidency ...	289	269	25,909	8,955	5,456	5,437	5,610	4,552	4,034	3,621	3,677	4,233	4,250	4,323	4,312	5,166	28,824	25,847	54,671	3·02	2·90	2·96	3·16	

ANNUAL FORM NO. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1908.*

1	2	3		4		5												6			7			8	
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	West Khándesh...	10	2	1,186	4	5	12	4	...	...	...	...	...	...	...	...	...	8	13	21	·03	·05	·04	6·42	1
2	East Khándesh...	16	10	1,459	38	206	330	194	64	3	...	...	...	2	1	...	...	369	431	800	·76	·91	·84		2
3	Násik ...	16	10	1,649	24	57	61	38	10	2	...	...	3	3	26	43	27	140	130	270	·34	·32	·33	7·13	3
4	Thána ...	12	11	1,633	57	32	69	148	84	50	17	33	127	137	73	33	36	490	349	839	1·16	·89	1·03	1·65	4
5	Kolába ...	11	7	1,484	34	11	15	7	4	1	2	9	30	36	63	54	75	186	121	307	·61	·40	·51	1·53	5
6	City of Bombay...	1	1	1	1	80	350	1,452	1,811	951	203	135	143	107	62	28	26	3,636	1,712	5,348	6·05	4·77	5·57	6·91	6
	Central Registration District.																								
7	Ahmednagar ...	14	7	1,355	11	...	1	...	1	...	...	...	...	14	58	25	6	58	47	10	·14	·11	·13	8·77	7
8	Poona ...	12	11	1,191	130	235	134	82	30	11	3	90	360	1,077	1,602	1,005	497	2,544	2,582	5,126	5·11	5·26	5·18	8·02	8
9	Sholápur ...	10	9	719	20	36	18	...	...	...	...	...	17	64	140	182	168	342	283	625	·94	·79	·87	11·01	9
10	Sátára ...	15	15	1,345	138	413	176	94	52	6	7	51	119	163	319	185	151	809	927	1,736	1·42	1·61	1·51	19·53	10
11	Ratnágiri ...	10	6	1,368	15	37	39	18	5	9	5	...	...	...	...	...	10	62	61	123	·11	·10	·11	·47	11
	Southern Registration District.																								
12	Belgaum ...	11	11	1,077	168	521	499	414	169	27	22	131	428	581	646	439	393	2,139	2,181	4,320	4·26	4·44	4·35	17·87	12
13	Dhárwár ...	17	13	1,302	57	55	76	42	15	27	12	24	188	443	519	413	276	1,038	1,062	2,000	1·85	1·91	1·88	13·88	13
14	Bijápur ...	10	4	1,118	8	110	48	28	5	...	...	...	...	...	...	1	...	96	96	192	·26	·26	·26	12·53	14
15	Kánara ...	13	4	1,289	10	24	26	12	4	3	...	...	...	...	1	...	...	38	32	70	·16	·15	·16	·62	15
	Gujarát Registration District.																								
16	Surat ...	10	8	778	44	74	49	45	14	2	5	1	32	47	20	14	37	162	178	340	·51	·56	·53	6·92	16
17	Broach ...	8	2	410	4	3	3	27	3	...	...	...	...	...	...	...	...	22	14	36	·15	·10	·12	4·46	17
18	Kaira ...	11	10	609	59	84	119	187	61	9	...	2	23	160	110	111	53	448	471	919	1·19	1·38	1·28	16·03	18
19	Panch Mahals ...	7	3	693	3	3	2	2	...	...	...	...	...	2	...	...	...	7	2	9	·05	·02	·03	4·98	19
20	Ahmedabad ...	12	9	874	56	132	313	421	155	15	...	...	13	105	15	5	1	515	660	1,175	1·26	1·70	1·48	4·71	20
	Sind Registration District.																								
21	Karáchi ...	11	6	633	12	117	221	544	692	527	181	60	124	66	52	111	134	1,672	1,163	2,835	6·79	5·92	6·40	5·99	21
22	Hyderabad ...	14	4	1,412	7	...	1	14	4	7	...	...	4	4	5	...	...	25	14	39	·05	·03	·04	·21	22
23	Thar and Párkar.	12	...	669	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
24	Lárkhána ...	11	3	713	3	9	4	2	...	...	...	...	...	...	...	...	...	9	6	15	·03	·02	·02	·03	24
25	Sukkur ...	10	2	611	2	1	1	1	...	...	...	...	...	...	...	...	...	1	2	3	·00	·01	·01	·05	25
26	Upper Sind Frontier ...	5	1	391	1	...	...	...	2	...	...	...	...	...	...	...	...	2	...	2	·02	...	·01	·06	26
	Total for the Presidency ...	289	169	25,909	906	2,245	2,567	3,776	3,185	1,650	457	542	1,611	3,011	3,712	2,699	1,890	14,818	12,527	27,345	1·55	1·40	1·48	7·81	

N. B.—These figures do not include deaths among Europeans, Eurasians and Fighting men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

FORTY-SIXTH ANNUAL REPORT

OF THE

Sanitary Commissioner for the Government of Bombay

1909

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency,

AND

The Annual Reports of the Health Officers of the Ports of Bombay Karachi and Aden.

133391

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1910

ANNUAL SANITARY REPORT—1909.

(Maximum limit, 25 pages.)

CONTENTS.

SECTION I.—METEOROLOGY—*Nil.*

SECTION II.—EUROPEAN ARMY—*Nil.*

SECTION III.—NATIVE ARMY—*Nil.*

SECTION IV.—JAILS—*Nil.*

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

Para.		Page
1—2.	Births and deaths among Europeans and Eurasians	1
3—4.	Native population in the Presidency	1
	Births.	
5.	Number of registered births	1—2
6.	Births by sexes	2
7.	Births by years	*ib.*
8.	Birth-rates in urban and rural population	*ib.*
9.	Birth-rates in rural registration circles	*ib.*
10.	Birth-rates in urban and cantonment circles	*ib.*
11.	Still-born	3
	Deaths.	
12.	Number of deaths	*ib.*
13.	Deaths by years	*ib.*
14.	Death-rate	*ib.*
15.	Male and female death-rates	*ib.*
16.	Deaths by registration districts	*ib.*
17.	Deaths by collectorates	*ib.*
18.	Birth and death-rates compared by collectorates to columns 6 and 9, Annual Form II	3—4
19.	Deaths by ages and sexes, Annual Form IV	4
20.	Death by caste or Class...	*ib.*
21—22.	Infant mortality	4—7
23.	Statistics of Ahmedabad	7
24.	Deaths by causes	*ib.*
25.	Death-rates among urban and rural population	*ib.*
26.	Death-rates in rural circles	*ib.*
27.	Death-rates in town circles	8
28.	Death-rates in cantonments in British territory...	*ib.*
	Cantonments in Quasi-Foreign Territory.	
29.	Statistics of cantonments in quasi-foreign territory	

PARA. PAGE

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

30. Mortality in 1909 9
31. Deaths by collectorates... ... ... *ib.*
32. Mortality for 20 years, 1890 to 1909, inclusive ... ... *ib.*
33. Cholera producing causes and preventive measures adopted ... 9—12

SMALL-POX.

34. Deaths from small-pox 12
35. Deaths by districts and collectorates ... ... *ib.*
36. Deaths by age ... ... 12—13

FEVER.

37. Deaths from fever 13
38. Deaths by registration districts and collectorates ... ... 13—14
39. Malarial fevers 14

RAINFALL.

40. Rainfall ... ... 14—15

PLAGUE.

41. Deaths from plague ... ... 15—16
42. Deaths by Registration Districts and collectorates 16
43. Deaths by months ... ... 16—17
44. Plague preventive measures 17
45. Inoculation ... ... *ib.*
46. Deaths among the inoculated ... ... 17—18

DYSENTERY AND DIARRHŒA.

47. Deaths from dysentery and diarrhœa 18
48. Deaths by registration districts and collectorates ... ... *ib.*

INJURIES.

49. Deaths from injuries 19
50. Deaths from injuries in 1908 and 1909 by sexes ... ... *ib.*

RESPIRATORY DISEASES.

51—52. Deaths from respiratory diseases ... ... 19—20

OTHER CAUSES.

53. Deaths from other causes ... ... 20—21
54. Deaths by registration districts and collectorates 21

SECTION VII.

55. General history of vaccination 22

SECTION VIII.

56. Sanitary Works—Military ... ... *ib.*

SECTION IX.

Sanitary Works—Civil.

57. Expenditure on sanitary works in municipal towns and Local Boards during the year 1908-09 ... ... 22—23
58. Bombay Village Sanitation Act ... ... 23—24
59. Village Sanitary Inspection Book 24
60. Complete sanitary surveys of larger towns ... ... 24—25

PARA. PAGE.

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

61. Charge of the office of the Sanitary Commissioner 25
62. The districts visited by the Sanitary Commissioner ... ... *ib.*
63. Tours of the Deputy Sanitary Commissioners ... ... *ib.*

APPENDIX I.

Annual Report of the Sanitary Board for 1909 ... ... 1—4

APPENDIX II(*a*).

Annual Report of the Health Officer of the Port of Bombay for 1909 ... 5—12

APPENDIX II(*b*).

Annual Report of the Health Officer of the Port of Karáchi for 1909 ... 12—14

APPENDIX II(*c*).

Annual Report of the Health Officer of the Port of Aden for 1909 ... 14—18

APPENDIX III.

Table showing the drainage and water works completed in certain towns ... 19

APPENDIX IV.

Births registered in districts 20
Deaths registered in districts 21
Deaths registered in the districts during each month of the year ... 22
Deaths registered in the districts according to age ... ... 23—25
Deaths registered in the districts according to classes ... ... 26—27
Deaths from different causes in the districts and towns ... ... 28—35
Deaths from cholera in the districts during each month of the year ... 36
Deaths from small-pox in the districts during each month of the year ... *ib.*
Deaths from fever in the districts during each month of the year ... 37
Deaths from dysentery and diarrhœa in the districts during each month of the year ... ... *ib.*
Deaths from respiratory diseases in the districts during each month of the year 38
Deaths from plague in the districts during each month of the year ... *ib.*

ANNUAL SANITARY REPORT FOR 1909.

SECTION I.—METEOROLOGY.—No remarks.

SECTION II.—EUROPEAN ARMY.—No remarks.

SECTION III.—NATIVE ARMY.—No remarks.

SECTION IV.—JAILS.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

EUROPEAN AND EURASIAN VITAL STATISTICS.

1. The European population in the Bombay Presidency, exclusive of cantonments in *quasi*-foreign territory, is 18,804 according to the census of 1901. During the year 1909, 326 births and 190 deaths were recorded against 329 and 309 in 1908, giving a birth-rate of 17·34 per mille against 17·50 in 1908, and a death-rate of 10·10 against 16·43. By sexes, 163 males and 163 females were born against 170 and 159 in 1908, and 130 male and 60 female deaths were recorded against 189 and 120 in 1908. The lower mortality among Europeans is chiefly noticeable in Bombay City and is recorded mainly under the headings of "other causes," Dysentery and Diarrhœa.

2. The Eurasian census population of 1901 is 6,557. During the year 139 births were registered against 129 in 1908, and 103 deaths against 177, corresponding to a birth-ratio of 21·20 per mille against 19·67 in 1908, and a death-ratio 15·71 against 26·99. Of the births 68 were males and 71 females against 68 and 61 in 1908, whilst of the deaths, 49 were males and 54 females against 100 and 77 in 1908.

The lower mortality recorded in Bombay City is the chief cause of the generally diminished mortality among Eurasians, and is shown especially in the registers under the same headings as mentioned in the case of Europeans.

NATIVE POPULATION—VITAL STATISTICS.

3. For the compilation of these statistics the census figures of 1901 have been used, showing a native population for the Presidency of Bombay, including Sind, of 18,481,362 persons.

4. Statistical returns are received from 26 Collectorates comprising 224 rural circles, and 58 towns and 7 cantonments in British territory, and from 8 cantonments in Foreign territory.

The population of the rural circles is 16,027,055, of the town circles 2,584,389*, of the cantonments in British territory 68,980 and of the cantonments in Foreign territory 120,736 persons.

Births.

5. The births registered in the Bombay Presidency, including Sind, in the year 1909 numbered 657,685, and were in the proportion of 35·59 per 1,000 of population at all ages. These figures show a decrease of 2,516 as compared with the previous year's returns, but exceed by 55,586, the mean of the previous ten years.

In Gujarat the birth-rate was 41·16 against 39·72 in 1908. It ranged from 37·22 in the Ahmedabad to 48·33 in the Broach Collectorate, and compared with the preceding year, there is an increase in all Collectorates. Of

* Includes population of Bombay City according to census of 1906.

the three largest towns in the Registration District, Surat and Broach show a decrease, while Ahmedabad records an increase in the birth-rate as compared with the previous year.

In the Southern Registration District, the birth-rate was 36·26 per mille as against 36·89 last year, and varied from 31·41 in the Kánara Collectorate to 41·74 in the Bijápur Collectorate, and compared with the preceding year shows a slight decrease of 0·63.

In the Western Registration District the recorded birth-rate for the year was 44·63 per mille as against 45·37 last year, and the variations were from 37·63 in the Thána Collectorate to 54·36 in West Khándesh Collectorate.

In the Central Registration District the birth-rate rose from 36·63 to 37·22 and varied from 32·68 in the Sátára Collectorate to 45·33 in the Ahmednagar Collectorate.

In Sind the recorded birth-rate was 19·73 per mille of population against 21·03 in 1908. The Deputy Sanitary Commissioner attributes this falling off in the ratio of births chiefly to the very small attention paid to registration. Excepting Upper Sind Frontier all other districts show a decrease in births as compared with last year. Two instances, not by any means exceptional, may be given of the way in which registration of vital statistics is carried out in Sind. In Badin Tappa of Hyderabad Collectorate, with a population of 6,051, 27 births were registered in 1909, of which 20 were entered in the register of Badin village, leaving 7 only for the rest of the tappa, or in the proportion of 1·42 per 1,000 of population. In another tappa with a population of 9,818, 52 births were recorded in 1909, and of these 50 were registered in one village of 3,219 souls, leaving only 2 births as the record for a year among a population of 6,599.

In Bombay City 19,563 births were registered against 19,888 in the previous year.

Births by sexes—Annual Form I.

6. There were 341,454 male and 316,231 female births recorded during the year against 342,669 and 317,532 in 1908. For every 100 female births, there were 107·98 males as compared with 107·92 in the previous year.

The ratio of recorded male to female births varies from 142·39 in Hyderabad Collectorate to 102·20 in Bombay City. The figures for the whole of Sind, as detailed in Annual Form I, are evidence of the general laxity of registration in that Province.

If Sind is omitted and an average is taken of the ratio of male to female births in the Presidency proper, a proportion of 105·84 male to every 100 female births is obtained.

In England and Wales this ratio in 1908 was 103·6, and during 70 years has only ranged between 103·2 and 105·4.

Births by years.

7. The following statement shows number of births recorded in each year since 1899 :—

1899 ...	685,348	1903 ...	576,949	1907 ...	610,533
1900 ...	505,662	1904 ...	648,594	1908 ...	660,201
1901 ...	465,647	1905 ...	611,173	1909 ...	657,685
1902 ...	631,393	1906 ...	625,486		

Birth-rates in urban and rural population.

8. The recorded birth-rates among the urban and rural populations of the Presidency were 26·40 and 36·66 against 25·32 and 36·92 in 1908. Except in the Collectorates of Dhárwár, Kánara and throughout Sind, excluding Thar and Parkár, the rural birth-rates exceeded the urban.

Birth-rates in rural registration circles.

9. In 30 rural circles, the birth-rate was above 50 per mille; in 63, it was between 40 and 50; in 48, it was between 35 and 40; in 24, it was between 30 and 35; in 20, it was between 20 and 30; and in 39, it fell below 20 per mille, and of these 39 rural registration circles, no less than 38 are in Sind.

Birth-rates in urban and cantonment circles.

10. Out of 58 towns and 7 cantonments in the Presidency, 7 towns recorded a birth-rate exceeding 40 per mille, *viz.*, Karáchi (56·08), Dhulia (51·84), Násik (47·78), Borsad (45·77), Dholka (43·55), Jambusar (43·41) and Bulsár (40·06).

Still-born.

11. During the year 1909, 9,949 (or 1·51 per cent.) of the total births were registered as "still-born" against 10,304, or 1·56 in 1908. Of these 5,579 were males and 4,370 females against 5,716 and 4,588 respectively in 1908. The percentage of still-born to total births varies from 0·10 in Ahmednagar Collectorate to 9·17 in Bombay City. In England and Wales no register of still-births is kept, but the proportion is supposed to be 4 per cent. of total births. Observations extending over a period of five years from 1878 to 1882 in five European countries show an average of 2·74 per cent. of still-born to total births including still-born. In India early maternity and unskilled midwifery probably have an effect on the number of still-births which is not altogether counterbalanced by the more natural lives of Indian mothers as compared with their European sisters, and 3 per cent. of still-born would not therefore be too high an average for this country. According to this standard only 4 out of 26 Collectorates return anything like a true proportion of still-births.

The high rate in Bombay City and in Kánara Collectorate has been frequently commented on in previous reports.

Deaths.

Number of deaths.

12. Among the native population, in the rural, town and cantonment circles in the Presidency, 505,936 deaths were registered in 1909 as against 501,838 or 4,098 more than in 1908. Of the total deaths registered 264,378 occurred among males and 241,558 among females against 261,646 and 240,192 respectively in 1908; and 24,319 or 4·80 per cent. were due to plague as against 27,345 or 5·45 per cent. last year.

Deaths by years.

13. The following statement shows the number of deaths recorded in each year since 1899 :—

1899	672,269	1903	811,525	1907	603,606
1900	1,318,783	1904	764,914	1908	501,838
1901	686,134	1905	588,394	1909	505,936
1902	721,462	1906	648,019		

Death-rate.

14. The recorded death-rate was 27·38 per mille against 27·15 per mille for 1908 and a decennial mean of 39·41.

Male and female death-rates.

15. The rate per mille of males dying to males living was 27·74 and of females dying to females living 26·98. In 1908 these ratios were 27·56 and 26·83 respectively. For every 100 deaths among females there were 109·45 among males as against 108·93 in the previous year. These figures vary from 131·74 in Bombay City to 101·80 in Broach Collectorate, while in the Province of Sind the ratio was 123·26 male to every 100 female deaths.

Deaths by registration districts.

16. In the Western, Central, Southern, Gujarát and Sind Registration Districts, the recorded deaths in 1909 were 111,603, 121,025, 93,971, 82,394, 62,449 as against 109,148, 118,616, 86,651, 87,040, 62,057 in the previous year, showing an increase in each case, except in Gujarát Registration District. The recorded deaths in Bombay City were 34,494.

Deaths by Collectorates.

17. Compared with the previous year there was a decrease in the recorded death-rate in all Collectorates except East Khándesh, Násik, Sátára, Belgaum, Dhárwár, Bijápur, and Lárkhána. In these Collectorates cholera, small-pox and plague are accountable for the increased mortality.

Birth and death-rates compared by Collectorates to columns 6 and 9, Annual Form II.

18. An examination of columns 6 and 9, Annual Form II, shows the death-rates exceeded the birth-rates in the Collectorates of Hyderabad and Lárkhána. In Bombay City the death and birth-rates were 35·95 and 20·39, respectively.

Under the conditions of registration prevailing in Sind any increased mortality from epidemic disease, such as the outbreak of cholera which occurred during the year in Hyderabad and Lárkhána Collectorates, is certain to reverse the relative positions of the birth and death-rates. In Bombay City the Executive Health Officer has shown that the recorded birth-rate is not truly comparable with the death-rate, seeing that many children, who may help to swell the death-rate, escape registration at birth, either by reason of parental negligence, or because they happen to be born outside the city.

For the whole Presidency the birth-rate exceeded the death-rate by 8·21 per 1,000 of population.

Deaths by ages and sexes, Annual Form IV.

19. Deaths by ages are given in Annual Form No. IV. It will be seen there were 205,768 deaths of children under 5 years of age, which according to the census of 1901 gives a death-rate of 90·59 per 1,000 living as compared with 93·08 last year. Children under 5 years of age contributed 40·67 per cent. to the total deaths, which is a little more than the average percentage. There are no marked variations from the average in the death-rates under any of the age groups.

Deaths by caste or class.

20. The deaths by classes in each Collectorate are recorded in Annual Form V, Appendix IV.

The irregular ratios under the head of "other classes" are due largely to the differences of classification in the mortality and census returns.

Infant mortality.

21. The mortality of infants, based on the number of registered births, was 180·44 per 1,000 against 185·57 during the previous year. The proportions were 187·60 among males and 172·71 among females as compared with 191·85 and 178·70 respectively, in 1908.

In 20 out of the 26 Collectorates of the Presidency the infant mortality rate is lower than in the previous year, and the six Collectorates which return a higher ratio than last year are those in which epidemic disease, cholera, small-pox and plague were most prevalent. The higher infant mortality in the Collectorates is not due entirely to these diseases, for indeed children of such a tender age enjoy a comparative immunity from plague and cholera as compared with adults; but it rather serves as an index of the health of the mothers, upon whose welfare depends the infants' chances of escaping the many ills attending its first year of life. Epidemic disease among the adult population is thus attended with increased waste of infant life.

Major Hutchinson, I. M. S., Deputy Sanitary Commissioner, Southern Registration District, has collected for the last three months of the year some interesting figures for the four Collectorates of his district, which show the percentage of infant mortality which occurs at various ages, under 1 month, between 1 and 6 months, and between 6 and 12 months; and also the causes of death. These figures show that nearly half the deaths among infants occur within the first month of life, in Kánara Collectorate the percentage rises as high as 61·4; that about a third take place during the second period 1—6 months; and the remainder during the last six months. Of the causes of death, convulsions overshadow all other causes in each age group, but the diagnosis is the weak part of these figures.

Taken as they stand they form a contrast to similar statistics for Bombay City, as shown in tables B and C below, which form part of the Health Officer's report. The figures for Bombay are for a whole year and are probably more accurate, at least as regards the causes of death. It will be seen that in Bombay the percentage of mortality is fairly evenly divided between the three age groups, and whereas debility is assigned as the chief cause of death within the first month of an infant's life, and respiratory diseases during the two succeeding age periods, that diseases of the nervous system—the equivalent of "convulsions" in village registers—do not occupy a prominent place.

It is worth noting as a contrast between the town and district figures that "debility" as a cause of death is a negative term denoting want of vitality,

which characterizes the infant at its birth, whereas "convulsions", whether primary or secondary, imply the existence of some active mischief, which may affect the strong equally with the feeble infant.

It is evident, then, that there are circumstances affecting the lives of young infants which would well repay investigation more especially in a Collectorate like Kánara, with its notoriously malarious tracts.

22. In Bombay City the ratio of infant mortality based on recorded statistics was 406·07, while the ratio corrected according to the method adopted by the Health Officer is reduced to 300 per 1,000 births.

The following extracts from the Annual Report for 1909 of the Executive Health Officer, Bombay Municipality, show what progress has been made during the year as regards the enquiry into the causes of infant mortality and its amelioration :—

"Inquiries into the causes of deaths of children under 12 months and the mortality from Puerperal Diseases were continued during the year under review.

"Subjoined is Table A summarising these inquiries and the work of the ten Municipal nurses and midwives attached to the ten Registration Districts of the City; the corresponding figures for 1908 are inserted to furnish a comparative view.

TABLE A.

"Table A shows the work done by the nurses and the result of their enquiries into the conditions of newly born children in 1908 and 1909.

	1909.	1908.
Total number of births registered	19,839	20,166
Number verified by the nurses	13,677	12,797
Percentage of the number verified to the total	68·9	63·4
Do. still-born to the number verified	9·8	10·9
Do. confinements unattended	18·0	31·0
Do. do. attended by unskilled women ...	58·3	43·1
Do. do. attended by qualified nurses (including Municipal).	11·3	13·6
Do. confinements attended by Municipal nurses ...	4·5	4·0
Do. children born in Hospital	12·3	12·1
Do. children born in healthy condition	67·8	53·5
Do. children fed on breast	64·9	67·8
Do. children dying within 30 days	12·3	15·2
Do. cases where the mother left home for work ...	31·3	29·9

"It will be noticed that 68 per cent. of the total number of births were verified by the nurses against 63 per cent. last year, and that the percentage of confinements wholly unattended has dropped from 31 to 18; a slight rise is also visible in the percentage of those attended by Municipal midwives, though the general rate of confinements attended by qualified midwives (including Municipal) has declined from 13·6 to 11·3. Considerable rise is, however, visible in the number of confinements attended by unskilled women—from 43·1 in 1908 to 58·3 in 1909.

"Municipal nurses and midwives during their rounds give homely talks on personal and domestic hygiene, and the care and upbringing of infants, and the conditions that imperil infant life. It may therefore be hoped that, in course of time, the poorer people will get familiarised with these visitations and learn to look upon the nurses and midwives with confidence, and agree to utilise their skilled services which at present they hesitate to accept.

"Referring to the table again, we shall notice that hospital births are almost at the same level; and that there is a cheerful fall in the number of infants dying within 30 days of their birth—from 15·2 in 1908 to 12·3 in the year under notice.

"In the tables that follow the percentages of deaths under various diseases are calculated on the total number of deaths under one year of age.

"Table B shows the deaths among infants from principal causes under three age-groups—1 to 30 days, 1 to 6 months and 7 to 12 months. A survey of the comparative figures for 1908 and 1909 will show that, in the year under notice, the total infant mortality was less by 1,047, and that from every cause there were fewer deaths—excepting the Diseases of the Nervous System—the increase here being only slight (63). Excluding small-pox and measles which were epidemic in 1908, and thus show 102 and 211 more deaths respectively, we find that deaths from Malaria dwindled nearly to half, from other fevers diminished by 25, from

Diarrhœa and Dysentery by 152, from Debility by 246, from Respiratory Diseases by 326, and that there were 28 fewer deaths due to immaturity at birth. The number of deaths from Puerperal fever were almost the same as in 1908 (363 against 360); while those from the Diseases of the generative system in females following parturition were 119 against 130 in 1908."

TABLE B.

Deaths among infants from principal causes.

Age Period.	Year.	Small-pox.	Measles.	Malaria.	Ague and Remittent fever.	Diarrhœa and Dysentery.	Premature Birth.	Debility.	Nervous system.	Respiratory system.	All causes.	Percentage of deaths in each age period to total deaths under 1 year of age.
1 to 30 days	1909 ...	6	...	...	33	59	150	2,302	301	62	2,970	36·98
	1908 ...	10	2	1	21	52	179	2,445	257	64	3,078	33·90
1 to 6 months	1909 ...	58	8	4	70	190	1	264	815	907	2,458	30·60
	1908 ...	88	47	7	82	254	...	335	814	1,062	2,807	30·92
7 to 12 months	1909 ...	70	19	7	78	362	...	60	350	1,262	2,602	32·40
	1908 ...	138	189	13	103	457	...	92	332	1,431	3,192	35·16
Total ...	1909 ...	134	27	11	181	611	151	2,626	1,466	2,231	8,030	...
	1908 ...	236	238	21	206	763	179	2,872	1,403	2,557	9,077	...

"Proceeding to a detailed examination of the statement with the aid of Table C, we find that (*i*) out of 19,839 children registered during the year, 3,078 died before completing the age of 30 days: for the majority of these (2,302 or 77·50), the cause of death given was debility, *i*, *e*, want of vitality, premature birth, wilful or ignorant neglect and the methods adopted by the women attending the labour; (*ii*) 2,458 of the children registered during the year died before attaining the age of six months: the cause of death being 7·72 Diarrhœa, 10·74 Debility and 33·15 Diseases of the Nervous System (Convulsions) and 36·89 Respiratory Diseases; (*iii*) 2,602 of the children registered died before reaching the age of 12 months, the cause of death being nearly 14 per cent. Diarrhœa, 13 per cent. Nervous Diseases (Convulsions) and over 48 per cent. Respiratory Diseases.

"In the second and third groups, the highest mortality is due to Respiratory Diseases; the next most fatal cause is Diseases of the Nervous System; then follow Debility and Diarrhœa: all of which signify exposure and defective feeding."

TABLE C.

Percentages of Infantile Deaths from Principal Causes.

	Small-pox.	Measles.	Malaria.	Ague and Remittent fever.	Diarrhœa and Dysentery.	Premature birth.	Debility.	Nervous system.	Respiratory system.	All Causes.	Glasgow, 1908. All causes.
1 to 30 days ...	·20	...	...	1·11	1·98	5·05	77·50	10·13	2·08	36·98	30·73
1 to 6 months...	2·35	·32	·16	2·84	7·72	·04	10·74	33·15	36·89	30·60	35·08
7 to 12 months.	2·69	·73	·26	2·99	13·91	...	2·30	13·45	48·50	32·40	34·18
Total ...	1·66	·33	·13	2·25	7·60	1·88	32·70	18·25	27·78	...	...

The practical remedies suggested by the Health Officer were detailed in last year's report and it is encouraging to know that serious efforts are being made to give effect to the most important of these remedies.

"By way of a practical beginning, I may here mention the inception of a scheme to provide a Free Lying-in-Hospital for the Poor, consisting of 100 beds and affording accommodation for different castes with arrangements to teach nursing to native midwives to be supplied free to the poor. The hospital is estimated to cost about Rs. 1,50,000 to build and equip, and Rs. 30,000 per annum to maintain."

Progress in any undertaking which involves a complete change from old customs must necessarily be very slow; time and money seem at first to be wasted, but patient continuous effort is ultimately successful. The scheme adopted in Bombay for investigating the cause of, and for reducing infant mortality has been admirably planned and might well be followed in some of the other large towns in the presidency. What has been done for the Parsis in Bombay should be practicable in other large centres, and not only for Parsis but for the other communities.

Statistics of Ahmedabad.

23. The general death-rate in Ahmedabad City fell from 56·54 to 56·19 per mille, the mean for the last five years being 56·82. Plague caused 31, fever 4,225 and respiratory diseases 2,898 deaths as against 507, 4,395 and 2,087, respectively, last year.

There were 4,188 births recorded or 23·12 per mille of population, the deaths exceeding the births by 33·07 per mille. The deaths registered under one year of age were 3,504 corresponding to a ratio of 836·67 per 1,000 of births.

Deaths by causes.

24. The subjoined table shows the deaths in 1909, arranged according to causes and contrasted with the results for 1908 and with the mean of the preceding five years :—

	Mean for five years, 1904 to 1908.		1909.		1908.	
	No.	Ratio per 1,000 of population.	No.	Ratio per 1,000 of population.	No.	Ratio per 1,000 of population.
Cholera ...	14,817	0·79	28,714	1·55	1,759	·09
Small-pox ...	5,945	0·32	5,019	·27	2,526	·14
Plague ...	93,559	5·07	24,319	1·32	27,345	1·48
Fever ...	255,011	13·81	223,888	12·11	243,372	13·17
Dysentery and diarrhœa.	54,636	2·95	35,039	1·90	40,781	2·21
Respiratory diseases ...	57,494	3·11	53,433	2·89	54,671	2·96
Injuries ...	6,731	0·36	7,029	·38	7,109	·38
Other causes ...	133,759	7·24	128,495	6·95	124,275	6·72
All causes ...	621,952	33·65	505,936	27·38	501,838	27·15

For comments on the causes of death, *vide* section VI.

25. The recorded death-rates among the urban and rural population and in the 7 cantonments in British territory are given in Table VI, Appendix IV. The death-rates for the 8 cantonments in Foreign territory will be found in paragraph 29. The urban and rural death-rates were 34·82 and 25·80 per mille as against 37·50 and 25·10 in 1908. In 10 Collectorates out of 26, the rural death-rates were in excess of the urban.

Death-rates in rural circles.

26. In 6 rural registration circles the mortality rose above 40 per mille, in 57 the death-rate was between 30 and 40, in 65 it was between 25 and 30, in 44 between 20 and 25, whilst in 52 the record was below 20 per mille and of these 40 are in Sind. The six rural circles recording death-rates of over 40 per mille are Bhusáwal (47·05) and Edlabad (42·53) in East Khándesh; Wái (40·54), Sátára; Mándvi (42·14) Surat; Wágra (43·20), Broach; and Nasrat (71·55), Hyderabad.

In Bhusáwal and Wái Circles plague was responsible for the high death-rate, while in the other four circles "fever" is recorded as the chief cause.

Edlabad, Wágra and Nasrat headed the list last year and the persistent high mortality in these areas will be made the subject of enquiry.

Death-rates in town circles.

27. In 3 town circles, out of a total of 58, the recorded death-rates exceeded 50 per mille; Násik, Gokák and Ahmedabad returned rates of 72·92, 71·60 and 56·19, respectively. The chief contributory causes were cholera in Násik, cholera and plague in Gokák, and cholera and small-pox in Ahmedabad.

Compared with the previous year's returns a greater number of deaths was recorded in the Sátára and Belgaum urban circles, and in some of the rural circles of Belgaum and Bijápur as a result of the combined attack of cholera and plague, while Poona city and Poona and Kirkee cantonments with comparative freedom from plague were able, notwithstanding an epidemic of small-pox and cholera, to register a lower rate of mortality than they have experienced for several years past.

Death-rate in cantonments in British territory.

28. During the year under report the death-rates in the cantoments from all causes were below normal. The highest death-rates were reported from Poona (22·86), Málegaon (34·76) and Deoláli (21·07).

Cantonments in quasi-foreign Territory.

Statistics of cantonments in *quasi*-foreign territory.

29. The following table shows the vital statistics of the civil population of those cantonments which are situated in *quasi*-foreign territory. The total number of births registered in these cantonements during the year 1909 was 2,029 against 2,163 in 1908, the birth-rate being 16·81 per mille as against 17·92 in 1908. There were 3,776 deaths, giving a ratio of 31·27 per mille against 4,044 deaths and a ratio of 33·49 in 1908 :—

Statement showing the names of cantonments with population and deaths by diseases for the year 1909.

Cantonments.	Population according to census of 1901.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from								Ratio of deaths per 1,000 of population.							
						Cholera.	Small-pox.	Plague.	Fever.	Dysentry and Diarrhœa.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Injuries.	Other causes.	All causes.
Municipal Limits.	26,323	67	537	738	20·32	...	30	...	236	300	4	633	1,263	...	·83	..	6·50	8·26	·11	17·43	33·1
Purely civil population of Cantonment.	206	7	28	...	...	...	...	..	1	1	...	2	4	...	...	..	4 85	4·85	...	9·71	19·42
Baroda	2,704	1	2,704	59	21·82	...	...	...	13	2	...	36	51	...	...	...	4·81	0·74	...	13·31	18·86
Bhuj	741	1·16	638·79	11	14·84	...	...	...	2	...	...	2	4	...	...	...	2·70	...	...	2·70	5·40
Deesa	3,566	5	1,713·20	120	14·01	...	...	...	86	2	5	30	123	...	...	...	10·04	0·23	0·58	3·50	14·36
Mhow	34,740	6	5,790	243	6·99	6	27	277	175	66	3	690	1,244	0·17	0·78	7·97	5·04	1·89	0·09	19·86	35·81
Nasirabad ..	22,494	8·58	2,621·68	549	24·41	..	...	197	296	56	14	350	913	...	...	8·76	13·16	2·49	0·62	15·56	40·59
Neemuch ...	14,624	4·52	3,235·40	303	20·72	...	...	...	118	7	...	105	230	...	...	...	8·07	0 48	...	7·18	15·73
Rajkot	338	·56	602·58	6	17·75	...	...	...	...	...	...	4	4	...	...	...	...	...	...	11·83	11·83
Total ...	120,736	100·82	1,197	2,029	16·81	6	57	474	927	434	26	1,852	3,776	·05	·49	3·93	7·68	3·59	·22	15·34	31·27

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Mortality in 1909.

30. In Annual Form VII are set forth the deaths from cholera for each district by months, the number of registration circles affected, and the number of villages from which cholera was reported, etc.

Deaths by Collectorates.

31. During the year 1909 there were 28,714 deaths recorded as due to cholera contrasted with 1,759 in 1908. A reference to Table No. VII will show that all the Collectorates with the exception of the Panch Maháls and Thar and Párkar were affected more or less by cholera. The extent of the epidemic is shown in the fact that out of the 270 registration circles in the affected Collectorates, 218 returned deaths from cholera, and in Belgaum Collectorate over 30 per cent. of the villages were attacked. Yet although so widespread, the disease in its greatest intensity was confined to the following 9 Collectorates, in which more than 1,000 deaths were recorded; East Khándesh (1,250); Násik (2,707); Kolába (1,041); Poona (2,236); Sholápur (1,472); Sátára (2,814); Belgaum (5,083); Dhárwár (3,617); Bijápur (2,338).

In 12 rural circles 25 per cent. of the total recorded deaths occurred; Chikodi (1,018); Parasgad (937), Sampgaon (903), Belgaum (787), all of Belgaum Collectorate; Bágalkot (718) of Bijápur Collectorate; Gokák (625) of Belgaum Collectorate; Násik (606), Bhimthadi (559) of Poona Collectorate; Panvel (488) of Kolába Collectorate; Gadag (467) of Dhárwár Collectorate; Wái (455) of Sátára Collectorate; Bijápur (450).

Among the towns Násik and Hubli recorded the highest mortality from cholera, 24·15 and 12·02 per mille respectively. In Násik the ratio is exceptionally high owing to the inclusion of deaths among non-residents of the town.

Deaths from cholera were returned during every month of the year, those in January being for the most part a continuation of epidemics started in the previous year. The highest mortality in any one month (6,664) took place in April, and from thence on to the end of July the epidemic continued with but little abatement. The disease first began to seriously decline in August and thereafter there was a rapid fall to the end of the year. Out of a total of 28,714 deaths, 25,910 were recorded in the five months from April to August.

Mortality for 20 years, 1890 to 1909, inclusive.

32. The following table shows the total number of deaths from cholera in each of the 20 years ending 1909:—

1890	...	3,259	1895	...	8,890	1900	...	163,889	1905	...	5,396
1891	...	17,850	1896	...	35,404	1901	...	13,600	1906	...	46,119
1892	...	42,900	1897	...	57,109	1902	...	3,229	1907	...	7,656
1893	...	18,853	1898	...	4,368	1903	...	1,825	1908	...	1,759
1894	...	33,588	1899	...	8,579	1904	...	13,156	1909	...	28,714

Cholera producing causes and preventive measures adopted.

33. Major Knapton, I. M. S., Deputy Sanitary Commissioner, Central Registration District, reports:—

"The disease was undoubtedly introduced into this Division from Násik, where there was a very serious epidemic in 1908 on the occasion of the great Sinhast Fair. The first few cases occurred at Málegaon in Máwal Táluka at the beginning of March. This place is on the Great Indian Peninsula main line and the disease was probably introduced by a railway passenger. The outbreaks then followed the route taken by the returning pilgrims along the Násik Road; beginning at Sangamner, they gradually spread to Junnar and Khed reaching Poona towards the end of the month. A quantity of smaller towns and villages on or near the line of progression being affected in turn.

"The comparative immunity of the Ahmednagar District may be accounted for by the fact that the road in question only cuts through a very remote corner of the Collectorate, and the disease was stamped out before it got any very great hold in that part of the country. The main stream of pilgrims passed on to Poona, whence they scattered over Sátára and Sholápur disseminating the disease broadcast, even as far as Ratnágiri.

"A serious outbreak was anticipated at Pandharpur during the annual Ashadi Fair, but fortunately as a much smaller number of persons than usual attended it, and very careful precautions were taken to prevent the introduction of any infectious complaints, very few cases occurred. Undoubtedly the most fertile causes of these widely diffused outbreaks are firstly, step wells, particularly in villages on the roads frequented by pilgrims; secondly, that where the drinking water is derived from rivers even in towns which boast a Municipality, not to mention smaller places where there are Sanitary Committees, no trouble whatever is taken to prevent fouling the supply. So long as the people are allowed to bathe, wash their clothes, cooking pots, etc., promiscuously in any part of the stream, irrespective of the fact that a little lower down, women are filling their chattis for domestic use, cholera, if once introduced, will spread rapidly."

The Deputy Sanitary Commissioner was on tour in the Sangamner and Akola Tálukas during the first appearance of cholera, and was fortunately able to pursuade the people to adopt simple precautionary measures with the result that no great spread of the disease was experienced. He also drew up and circulated widely a leaflet detailing the precautions which should be adopted in order to check the spread of cholera.

Major Hutchinson, I. M. S., Deputy Sanitary Commissioner, Southern Registration District, expresses the opinion that the spread of cholera is largely due to the general movement of people in connection with religious fairs, particularly during the second quarter of the year. In support of this statement he describes the course of the epidemic in Belgaum District:—

"Between the 6th and 10th of February a large fair was held at Chinchli in the Kolhápur State. It is said that the first case in Sankeshwar came from Chinchli, 8 villages attribute their epidemics to people coming from Sankeshwar, the most important being Yamkanmardi, from which 7 other villages derived their infection. It is not known how many people went from the Sankeshwar fair in February to the Pachhapur special sacrifice held in March, but 18 villages apparently received the infection from people coming from Pachhapur. In April several large fairs were held, notably the Kedarling and Yellamma fairs. Gokák was infected from the former and in its turn handed on the infection to 6 villages. From Yellamma 10 villages derived infection, the most important being Hongal to which 12 villages directly or indirectly owe infection. From Gurl Hosur, also infected from Yellamma, 3 other villages were infected. Kini fair held on the 13th April was blamed by 6 villages. Kanmadi fair in the beginning of April was held responsible for cholera by 7 villages.

"The large fairs are obviously not responsible for the whole spread, small fairs and markets are constantly being held; for instance Neginhal was infected early in April. The source of infection cannot be given, but 8 villages believe that the epidemic of cholera started from villagers visiting Neginhal. Judging from the date of infection it seems probable that Neginhal was infected by people going to or from Yellamma. The above results are by no means complete; returns have not been received from a large number of villages, but there is apparently direct evidence that 93 villages derived their infection directly or indirectly from one or other of the fairs.

"The causal connection of these fairs with cholera does not cease with the history of the epidemic in Belgaum District. In Dhárwár District the tálukas chiefly affected were those in direct communication with Parasgad Táluka of the Belgaum District. Many villages state that the infection was brought by people from various villages in Parasgad Táluka. In Shirhatti Táluka of the Sángli State a fair is held early in May. Many people from Gadag, Bankápur and Mundargi rural circles visited this fair, and several villages attribute infection to people coming from this fair.

"In Bijápur Zilla cholera was chiefly epidemic in Bágalkot, Bádámi and Bijápur rural circles, all of them in close association with the affected tálukas of Belgaum Zilla—in point of season the epidemic coincided with that in Belgaum Zilla. The comparatively small liability to severe and widespread cholera epidemics in Kánara is worthy of note, and may be associated with the more plentiful water and the detached houses or truly rural conditions.

"The liability to cholera can only be reduced by attention to water-supplies. The task of providing a pure water-supply for every village is well nigh impossible, but it is possible (1) to convert step wells into draw wells, (2) to instruct the people in simple methods of protecting water-supplies from pollution and of domestic purification.

"A very serviceable drug is available in permanganate of potash. A series of experiments to show its value were conducted during the year, and the conclusions arrived at were—

(1) that permanganate of potash added to a well contaminated with Bacillus Coli and its allies, quickly destroys that contamination.

(2) that the influence of the permanganate is only temporary, that it does not protect from subsequent pollution.

"The infected wells were treated in the manner laid down in the instructions for village officers. It is fairly certain therefore that permanganate of potash will destroy any given specific contamination of a well with the Cholera Organism."

Lieut.-Col. Arnim, I.M.S., Deputy Sanitary Commissioner, Gujarát Registration District, reports with reference to the outbreak of cholera in Gujarát, that "the inquiries as to origin of the disease generally showed importation from Násik, Ujjain, Pandharpur and Bombay."

Advice was given through the Commissioner of the Division to all Collectors regarding the best method of dealing with wells and water-supplies, infected houses, infected clothing and furniture, disposal of the infected dejecta, treatment of the patient, &c.

In spite of all the trouble taken to provide the means of self-protection, the Deputy Sanitary Commissioner found on personal inspection "that these measures were inefficiently carried out by various local authorities."

Captain W. O'S Murphy, I.M.S., Acting Deputy Sanitary Commissioner, Sind Registration District, writes :—

"The disease first appeared in the towns of Sukkur and Garhi Yásin on 16th April 1909, having been introduced from Hardwar Pilgrimage, where cholera was prevalent in an epidemic form. Two cases were imported into Sukkur and one into Garhi Yásin (Sukkur District). The disease then spread rapidly to Lárkána District and thence to Karáchi involving at last all the districts excepting Thar and Párkar.

"No time was lost in pressing upon the Municipalities and the District and Local Officers the importance of taking early steps to check the further spread of the disease.

The preventive measures generally adopted by the Municipal and other local bodies were:—

(*a*) Greater attention being paid to the sanitation of affected towns and villages.

(*b*) Cleansing of wells with permanganate of potash.

(*c*) Prohibiting bathing and washing near wells.

(*d*) Cleansing of latrines and places used as urinals with Mc Dougla's powder and phenyle.

(*e*) Segregation of patients and disinfection of their clothes, &c.

(*f*) Free distribution of cholera mixture to the patients.

"The District Officers of North-Western Railway in Sind were at once communicated with as soon as it was known in this office that the disease was being imported into this Province from Punjab. A circular was issued by Traffic Superintendent, North-Western Railway, Sukkur, to all the Station Masters enjoining on them to watch the trains in order to avoid infection being carried from one place to another."

In the Western Registration District, Násik was the source of cholera. The Sinhast Festival which began in July 1903 lasted upto the end of August 1909. In the previous year's report, details were given of the local arrangements which had been made for the protection of Násik and the neighbouring holy town of Trimbak, and further reports on the progress of the festival and on the measures adopted to prevent the attack and spread of cholera have been submitted to Government.

During the 13 months of its existence the Sinhast Festival was attended by nearly half a million people, and on four occasions, when the influx was greatest, cholera broke out. In last year's report the first attack was noted in December 1908 and again the disease broke out in April, June and August of this year. Each time the attack was successfully combatted and the town remained free in the intervals. But every outbreak meant the scattering of infection far and wide, which no practicable measures were equal to preventing, or could be expected to prevent. The prompt suppression of the successive outbreaks in Násik must be largely ascribed to the free use of permanganate of potassium in all sources of water-supply. The fact that the use of permanganate became acceptable to the people marks a great advance, seeing that only four years ago an attempt to use this disinfectant nearly caused a riot in Násik.

The experiments of Major Hutchinson, I.M.S., which have already been mentioned show, that permanganate of potassium is an active destroyer of the Bacillus Coli in water and it may therefore be safely relied upon to kill the more

delicate Comma bacillus. One fact stands out clearly in the year's history of cholera and that is the part played by large gatherings of people in spreading cholera.

No practicable measures will avail to prevent this spread and the best hope of rendering these centres of pilgrimage and festivals harmless lies in sanitary improvements. Work on these lines has already been started; improvements in the water-supply and drainage of Pandharpur are being carried out and a public water-supply for Násik has received sanction. It is hoped that every other large pilgrim centre will receive attention in turn with the object of making them all reasonably proof against the attacks of cholera.

Small-pox.

Deaths from Small-pox.

34. The recorded deaths under this heading numbered 5,019, of which 2,533 were males and 2,486 females, as compared with 2,526 in the year 1908 and 5,184, the decennial mean.

The number of deaths registered from small-pox since 1898 is as follows:—

Year.	Number of deaths from small-pox.	Year.	Number of deaths from small-pox.
1898	1,834	1904	4,289
1899	1,946	1905	16,985
1900	9,885	1906	4,063
1901	5,340	1907	1,862
1902	2,189	1908	2,526
1903	2,752	1909	5,019
Total ...	23,946	Total ...	34,744
Mean ...	3,991	Mean ...	5,791

Deaths by Registration Districts and Collectorates.

35. Deaths from small-pox by months and Collectorates are shown in Annual Form No. VIII.

The disease was chiefly confined to the Western and Central Registration Districts, Ahmedabad and the City of Bombay. The Collectorates of Broach and Sukkur enjoyed complete immunity. Of the Registration Circles 165 or 57 per cent. were affected, while the number of affected towns and villages rose from 569 in 1908 to 1,079 in the year under report.

The ratio of mortality per 1,000 of population for the Presidency was ·27 against ·14 in the previous year.

Of the total deaths 51 and 23 per cent., respectively, were contributed by the Western and Central Registration Districts.

For the whole Presidency the mean ratio of deaths from small-pox per 1,000 for the previous five years amounts to ·32, which was exceeded in the year under report by 8 out of 26 Collectorates, including Bombay City, 5 of the 8 Collectorates being in the Western Registration District. In Bombay City the mortality was less than half the previous year's total, while in Poona and Ahmedabad cities severe epidemics were experienced, contributing 79 and 92 per cent., respectively, of the small-pox mortality in these Collectorates.

Deaths by age.

36. Of the total number of deaths 36 per cent. occurred among children under one year of age, 48 per cent. among children 1 to 10 years, and the remaining 16 per cent. among persons over 10 years of age.

The Deputy Sanitary Commissioner, Gujarát Registration District, remarks:—

"Until compulsory early notification of the disease, coupled with compulsory vaccination, are enforced, these periodical outbreaks of small-pox cannot be controlled with full efficiency."

In Sind, the Deputy Sanitary Commissioner reports :—

"There is a growing opposition to vaccination and a consequent increasing number of unprotected throughout the Province."

In the Southern Registration District, the Deputy Sanitary Commissioner remarks on the increasing feeling of opposition to vaccination which pervades certain parts of the district, and shows how closely associated with this opposition is the prevalence of small-pox; so closely indeed that on an average of 22 years the mortality from this disease in the best protected areas has not exceeded 10 per 100,000 of population, whereas at the other end of the scale, in localities where opposition is strong, this average has exceeded 70 per 100,000 of population.

The only available preventive measures are encouragement of vaccination and revaccination, and supplementing the existing staff of vaccinators whenever this is considered desirable.

Fever.

Deaths from fever.

37. The recorded deaths under the heading fever numbered 223,883, of which 116,896 were males and 106,992 females against 243,392 in the previous year and 286,931, the decennial mean.

The number of deaths from fevers since 1898 is as follows :—

Year.	Number of deaths from fevers.	Year.	Number of deaths from fevers.
1898	216,324	1904	251,330
1899	228,438	1905	245,373
1900	543,319	1906	274,653
1901	291,951	1907	260,329
1902	270,845	1908	243,372
1903	259,704	1909	223,888
Total ...	1,810,581	Total ...	1,498,945
Mean ...	301,763	Mean ...	249,824

Deaths by Registration Districts and Collectorates.

38. Deaths from fevers by months and Collectorates are shown in Annual Form No. IX.

The fever death-rate for the Presidency fell from 13·17 per mille in the previous year to 12·11 in the year under report against a decennial mean of 15·53. The decrease in mortality, as compared with the previous year, is shared by all the Collectorates excepting Násik, Sátára, Karáchi and Lárkhána, the last named Collectorate showing an increase of 4·75 per mille, while in the others the increase was but slight. In Sholápur, Kánara and Panch Maháls Collectorates a fall was recorded of 6·63, 3·63 and 3·27 per mille respectively. In Lárkhána a higher than average fever death-rate was recorded in the first two and the last two months of the year, which was possibly due to malaria; but a rise was also shown in March and June, probably helped by cholera and small-pox which were prevalent.

Of the three Collectorates mentioned as recording a marked fall in the fever death-rate, in only one, the Panch Maháls, is it likely that the fall really represented a lessened incidence of fatal malaria. In this Collectorate the greatest drop was registered in October, November and December, that is, at a time of year when malaria is most prevalent; and, moreover, there was a complete absence of epidemic disease likely to be put down to fever.

Kánara Collectorate is notoriously malarious in parts, but only slight variations in the "fever" mortality of the two years were recorded in the months of greatest prevalence of malaria, while during the first five months of the year the fall was most marked. During the first half of the year cholera,

small-pox and plague are most likely to be in evidence, and as a matter of fact all three were more prevalent at this time in Kánara Collectorate in 1908 than in the year under report.

In Sholápur Collectorate falls in deaths from "fever" were most marked in April, July, October and November. Sholápur is not a malarious District and the records for 1908 show that plague was most prevalent during the last three months of that year, whereas during the year under report these months were free from epidemic disease.

Malarial fevers.

39. Taking the Presidency as a whole there were no indications of any unusual mortality from malaria. During the year under report the number of deaths registered as due to "fever" was the lowest on record during the last ten years. The lowest mortality was recorded in June and the highest in January.

The available information regarding anti-malarial measures in the Collectorates is very meagre and is likely to continue to be so until some system is adopted for recording and reporting on such measures. There appears to be a want of co-ordination in the efforts made to combat malaria, more especially in the matter of the provision of quinine. Some District Local Boards and Medical authorities seem to be working on independent lines, and between the two information as to what progress is being made is difficult to obtain. It has been ascertained that from Yeravda Central Prison quinine in packets to the value of Rs. 5,580 was issued during the year under report. This includes supplies to Municipalities, District Local Boards, to officers of the Revenue, Education, Police and Forest Departments. Roughly about 800 lbs. of quinine were distributed among all the Collectorates of the Presidency, exclusive of Sind, but including Bombay City; the only three Collectorates which did not participate were Sholápur, Bijápur and Ratnágiri. Nearly half the total issued went to Kaira and Dhárwár Collectorates, and an almost equal amount was divided in various proportions among the Collectorates of Belgaum, Broach, Khándesh, Kánara, Panch Maháls, Surat and Thána. There is no information available in this office to show how much of this quinine has been actually used by the people.

The most definite information comes from Sukkur, the Collector of which District reports that 200 lbs. of quinine in pills of 2½ grains were bought by the District Local Board. Out of this amount 144 lbs. were given for sale to Banias and the remainder, with the exception of 6 lbs., kept for contingencies, was used for free distribution, and at the end of the season a balance of 24½ lbs. remained. It is not clearly stated whether the Banias sold all their stock or not.

The Lárkhána District Local Board is reported to have purchased Rs. 600 worth of quinine from the Hyderabad Prison for distribution in the District, but the amount of quinine actually used is not mentioned. From Hyderabad comes the statement that quinine was supplied by the Collector to Revenue, Education and Police Departments and to selected zamindars, but no details are given.

In West Khándesh 3½ lbs. of quinine were sold and distributed.

A beginning was made in the employment of Civil Medical Assistants as travelling doctors in a few selected circles, but too late to afford any useful information for the present report. In Poona Collectorate five Civil Medical Assistants were deputed for duty in Haveli, Khed and Bhimthadi Tálukas; in Sukkur Collectorate two were employed, and six in West Khándesh.

Of other anti-malarial measures, minor works of draining or filling in hollows, the use of kerosine oil and removal of weeds from tanks and streams were carried out by a few Municipalities.

Rainfall.

40. *January.*—Practically there was no rain during the month except a few cents in East Khándesh and Bijápur.

February.—Light rain mostly in Gujarát, Káthiáwár and Cutch; practically none elsewhere.

March.—Rain was received in light to fair showers at a few places in South Deccan, the whole of Karnátak, in parts of Kánara and in the Southern Maratha Country States.

April.—Scattered showers were received in the Deccan and Gujarát.

May.—Rain was received in light to fair showers in almost the whole of the Deccan, except West Khándesh, mostly in scattered showers.

June.—The south-west monsoon opened on the Konkan Coast and occasioned heavy rain on the littoral as far as Bombay. The current being weak, its progress into the interior was slow and it reached Gujarát only in the last week. In the Deccan and the Karnátak, however, fairly heavy rain was received.

July.—Rain generally exceeded the average in Khándesh and in the western portion of Násik, Poona and Sátára; elsewhere generally in defect. It fell in fair to heavy showers in Khándesh and in tracts near the Sahyádris. In the Karnátak, total fall of the month above the average in Belgaum and in the western portion of Dhárwár. In the Konkan, the aggregate rain far in excess of the usual fall. In Gujarát, except in Broach, total fall generally in excess of the average.

August.—Total fall generally in defect of the average in western tracts; but at a few stations in East Khándesh and in the east of Poona and in almost the whole of Ahmednagar and Sholápur it was in excess of the usual fall.

September.—In almost the whole of East Khándesh and at a few places mostly in the eastern tract, rain during the month in excess of the average; elsewhere in defect, particularly in the western parts. Rain in light to fairly heavy showers fell in the Karnátak. In the Konkan and Gujarát the aggregate fall of the month was in excess of the average.

October.—In the Deccan, rain in defect of the average, particularly in the eastern tracts. In the Karnátak, the total fall of the rain exceeded the average in parts of Belgaum and Dhárwár; but was generally below the average especially in Bijápur. In the Konkan, aggregate fall of the rain far short of the usual quantity throughout the Division. In Gujarát, except a few light scattered showers in Surat, Broach, and Ahmedabad there was practically no rain in the Division.

November.—The Deccan and Gujarát were entirely rainless except Sholápur and Sátára. In the Karnátak and the Konkan the rain was in defect of the average.

December.—Rain was received in light to moderate showers in Gujarát, Gujarát States, Káthiawár and Cutch. In north Deccan it was fairly heavy in East Khándesh. In the Karnátak a few stations received partial showers in Bijápur and Dhárwár.

The prices of food-grains were normal over the whole of the Presidency except in Bijápur, Kánara and Panch Maháls Collectorates. In Bijápur Collectorate owing to partial or complete failure of the kharif harvest of 1908 and to the failure of both kharif and rabi crops over a large part of Bádámi Táluka, relief was granted, and in Bádámi Táluka famine was declared in February of the year under report. Relief works, however, did not fill up according to anticipations and it soon became evident that there was no distress requiring such relief. Accordingly with the fall of the rains in June the declaration of famine was cancelled. The death-rate for the year was in excess of the quinquennial mean, but not greater than could be accounted for by the prevalence of cholera and plague.

Grain compensation was allowed to low-paid servants of Government in the three Collectorates mentioned up to the end of November.

Plague.

Deaths from plague.

41. During the year under report 24,319 deaths (13,135 males and 11,184 females) were registered under plague as compared with 27,345 in 1908 and a decennial mean of 119,187.

The number of recorded plague deaths since 1898 is given below :—

Year.	Number of deaths from plague.	Year.	Number of deaths from plague.
1898	86,191	1904	223,957
1899	96,596	1905	71,363
1900	33,196	1906	51,525
1901.	128,259	1907	93,609
1902	184,752	1908	27,345
1903	281,269	1909	24,319
Total ...	810,263	Total ...	492,118
Mean ...	135,044	Mean ...	82,020

The record for low plague mortality, which was established last year, has been broken by the returns for the year under report.

Deaths by Registration Districts and Collectorates.

42. A reference to Annual Form XII will show that as compared with the mean of the previous five years, the decline in plague mortality was general throughout the Presidency, including Sind. This decrease was shared by all Collectorates except East Khándesh, Kolába, Sátára, Ratnágiri and Bijápur. The most marked fall in plague mortality—3·33 per mille—was recorded in Poona Collectorate, and especially in Poona City. The experience of Bijápur teaches that no Collectorate can congratulate itself on a series of years of comparative immunity from plague as a precursor of the extinction of this disease. After three years of comparative freedom this Collectorate experienced a fairly severe epidemic during the year under report, although only 25 out of 1,118 villages were affected and 1,103 deaths were recorded. In Sátára Collectorate the plague mortality, although small in comparison with the quinquennial average exceeded the previous year's total by 3,509; the epidemic was equally widespread in both years, but attacked 204 villages during the year under report against 138 during the previous year. In two of the largest towns of the Collectorate, Sátára and Wái, plague deaths numbered 289 and 114, respectively, compared with 83 and 5 during the previous year.

Additional interest is lent to the plague records of coast districts in view of the orders of Government issued early in the year under which the examination of passengers on coasting steamers was abolished. The connection between Bombay and the coast districts is very close through the agency of passenger steamers, and if the medical examination formerly in force had any influence in keeping plague out of the coast districts, removal of all restrictions should be followed by an increase of plague. For Bombay has not ceased to be a disseminator of plague, notwithstanding the light incidence of the epidemics of recent years. Proof of this is afforded by recent returns of the general infectious diseases Hospital in Poona, into which 9 cases of plague were brought from the Railway Station. The sick people were on their way to Sátára from Bombay, but were too ill to proceed further than Poona, and they must represent a small proportion of persons carrying infection from Bombay. The plague records for the year under report show that in Kolába Collectorate there were 435 deaths against 307 in the previous year, of which 71 were referred to the port of Panvel compared with one last year, and 21 to Alibág compared with 39. In Ratnágiri Collectorate 220 deaths from plague were recorded against 123 in the previous year, of which 156 occurred in Vengurla port against 5 last year.

Separate figures for very few of the coast ports are received, but it should be noted that Ratnágiri itself and Kárwár and Kumta were quite free from plague.

Deaths by months.

43. In reviewing a plague epidemic season it is most convenient and instructive to consider the activity of the disease in the last six months of one year in conjunction with

the first six months of the succeeding year. If this course is adopted, we find that the usual course, as illustrated by the epidemics of the last four years, is as follows:—

Following on a period of quiescence in June and July there is a sharp rise in August reaching its maximum in October, thence to the end of February in the following year there is a gradual fall. In March and April there is again a sudden increase followed by a gradual fall to the period of quiescence in June. This cycle represents three epidemic seasons appearing in different parts of the Presidency. The first rise from August to October represents the onset and progress of plague in the Deccan and Southern Marátha Districts, the high level maintained up to the end of the year and extending into the succeeding year marks the appearance of epidemic plague in the north Deccan and in Gujarát, while the sudden increase in March and April is a sign of epidemic prevalence in Bombay and Karáchi cities.

Plague preventive measures.

44. Operations directed towards the prevention of plague are inoculation, evacuation and rat destruction. Inoculation is placed within the reach of all, at Civil Hospitals and Dispensaries and through the agency of private medical practitioners, while in addition travelling inoculators are sent to every District where the people evince any desire to avail themselves of inoculation. Evacuation is a measure largely made use of by village communities where circumstances permit. Rat destruction bids fair to become the most effective preventive measure and possesses two distinct advantages, in that it strikes at the root of the disease and can be carried out without interfering in any way with the convenience and liberty of the people.

Inoculation.

45. During the year under report 26,085 persons, of whom 24,353 belonged to the British Districts and 1,732 to Native States, were inoculated against 50,408 in 1908. Of the total number, 7,028 operations were performed in Sátára District, 3,794 in Karáchi, 3,321 in Poona, 1,604 in Dhárwár, 1,003 in Ahmedabad, 925 in East Khándesh, 557 in Belgaum, 537 in Sholápur and 515 in Kaira District, while the number of inoculations performed in other districts was less than 300. As regards Native States the majority of operations were performed in Sávantwádi (1,010) and Kolhápur and the Southern Marátha Country States.

In the chief plague-infected towns the number of inoculations performed was 4,566 in Bombay, 3,794 in Karáchi, 2,443 in Poona, 4,162 in Sátára, 1,350 in Dhárwár and 494 in Wái.

Deaths among the inoculated.

46. Among the inoculated 35 cases of plague were reported, of which 20 proved fatal as compared with 65 cases and 35 deaths in the preceding year. Of the total, 11 cases and 5 deaths occurred in Sátára Collectorate, 5 cases with 4 deaths in Poona, 4 cases with 3 deaths in East Khándesh and Ahmedabad, 2 cases with 1 death in Kanara and Karáchi City, 6 cases with 3 deaths in the Kaira Collectorate, and one case which recovered in Sávantwádi State. Among the fatal cases 13 might reasonably be considered as incubating the disease at the time of inoculation, and the remainder followed upon an attack of plague which supervened after periods varying from 14 days to 8 months after inoculation. In three instances in which plague developed 3 to 4 days after inoculation, recovery was reported.

Rat Destruction.

Rat destruction as a plague preventive measure was practically confined to Kaira Collectorate and to parts of Sátára and Belgaum Collectorates, in which areas special operations were conducted throughout the year as mentioned in last year's report.

During the first year of these operations villages were selected in localities where plague recurred year by year, and it was shown that by systematic and continuous destruction of rats it was possible to ensure freedom from plague in a village which was surrounded by infected neighbours. During the year under report the light incidence of plague in these selected centres made rat destruction in fixed centres of no effect as a demonstration. Therefore a change in the method of attack was adopted, and travelling rat catching parties were organized with a view to rapid operations in villages around infected centres.

The possibility of keeping a few isolated centres free from plague by rat destruction had been proved, and the endeavour was now made to reverse the process, to confine plague to isolated centres, preventing its spread from village to village by destroying rats in all the adjoining villages. These operations are now in force, and their value in preventing the spread of plague in rural areas cannot be estimated until another plague season comes round. These operations, if carried out on a large scale, would be costly, and with a view to reduce labour and expense, experiments are being made with the object of estimating roughly the minimum reduction in the rat population of any village which is necessary to tide over an epidemic season. No fixed ratio can be laid down for general application, as the proportion of rat to human population appears to vary enormously in different Districts.

Further enquiries into the persistent recurrence of plague in certain localities only tend to confirm the opinion expressed in last year's report that plague never actually dies out in some of these areas. That this is the case in Sátára Collectorate there seems to be no doubt, and the localities in which at the end of a plague season the disease lingers are most likely to become centres of dissemination during the following season.

During the period of quiescence the number of susceptible rats is at the lowest point owing to the great mortality caused by the epizootic, and also the rat fleas are least numerous. Plague tends to kill itself by its own virulence, it destroys the rats upon which it is dependent for its development and spread, and a period of quiescence follows, which, synchronising with the months of lowest flea prevalence, puts an end to human plague. The lull in activity allows of the increase of susceptible rats, and the sequence of events is repeated, namely rat mortality followed by human mortality which is at its height during the season of greatest flea prevalence. Re-importation is also an important factor in the recurrent epidemics of plague.

Dysentery and Diarrhœa.

Deaths from Dysentery and Diarrhœa.

47. During the year under report 35,039 deaths (18,703 males and 16,336 females) were registered as due to these causes as compared with 40,781 in 1908 and a decennial mean of 74,048.

The number of deaths from dysentery and diarrhœa since 1898 is as follows :—

Year.	Number of deaths from Dysentery and Diarrhœa.	Year.	Number of deaths from Dysentery and Diarrhœa.
1898	56,789	1904	61,470
1899	74,736	1905	55,488
1900	218,243	1906	61,736
1901	60,198	1907	53,708
1902	58,682	1908	40,781
1903	55,443	1909	35,039
Total ...	524,091	Total ...	308,222
Mean ...	87,348	Mean ...	51,370

Deaths by Registration Districts and Collectorates.

48. Deaths from these causes by months and Collectorates are set forth in Annual Form No. X.

The death-rate per mille from these causes for the whole Presidency was 1·90 against 2·21 in the previous year, and there are no great variations from last year's figures in any Collectorate with the exception of East and West Khándesh, in both of which a marked fall was recorded. The monsoon is the period of greatest prevalence of dysentery and diarrhœa under ordinary circumstances.

Injuries.

49. The returns under this head show 7,029 deaths, of which 3,941 were males and 3,088 females against 7,109 in the previous year and 7,020, the decennial mean.

Deaths from Injuries.

The number of deaths registered under the heading "Injuries" since 1898 is given in the following table :—

Year.	Number of deaths from Injuries.	Year.	Number of deaths from Injuries.
1898	6,984	1904	6,333
1899	7,102	1905	6,586
1900	8,224	1906	6,830
1901	7,092	1907	6,799
1902	7,434	1908	7,109
1903	6,693	1909	7,029
Total ...	43,529	Total ...	40,686
Mean ...	7,255	Mean ...	6,781

50. The following table shows the deaths by sexes arranged under the various heads classed as "Injuries," and compared with those of the previous year:—

Deaths from Injuries in 1908 and 1909 by sexes.

Causes.	1908.			1909.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,250	1,504	2,754	1,260	1,644	2,904
Poisoning	83	39	122	83	48	131
Hanging	114	74	188	114	70	184
Wounding	588	304	892	584	300	884
Wild beasts	32	12	44	31	15	46
Snake-bite	808	484	1,292	890	516	1,406
Railway	67	13	80	55	10	65
Other causes	1,154	588	1,737	924	485	1,409
Total ...	4,095	3,014	7,109	3,941	3,088	7,029

Of the total mortality from injuries 43 per cent. was due to "drowning," 50 per cent. of the cases were accidents at wells; and more than two-thirds of these accidents (1,003) happened to females.

Respiratory Diseases.

51. There were 53,433 deaths (28,320 males and 25,113 females) recorded under the heading "Respiratory Diseases" against 54,671 in 1908 and 57,494, the mean of the previous five years.

Deaths from Respiratory Diseases.

The number of deaths registered from respiratory diseases since 1902 is given below :—

Year.	Number of deaths from Respiratory Diseases.	Year.	Number of deaths from Respiratory Diseases.
1902	59,379	1906	60,615
1903	59,349	1907	58,068
1904	59,579	1908	54,671
1905	54,537	1909	53,433
Total ...	232,844	Total ...	226,787
Mean ...	58,211	Mean ...	56,697

52. It will be noticed that taking the Presidency as a whole the recorded deaths from respiratory diseases show a remarkable consistency from year to year. The monthly returns show also a fairly equal distribution of deaths, the second quarter of the year being usually the most healthy. It is impossible to give any definite opinion as to what are the commonest diseases included under the head of "respiratory," but the figures, taken for what they are worth, point to some cause operating fairly evenly all the year round, and tuberculosis as a cause would produce such results. Annual Form No. XI which gives the statistics of deaths from respiratory diseases should be examined with Annual Form No. VI, in which the mortality figures are entered for rural and town circles separately, and also with Annual Form No. II in which the density of population for square mile is tabulated by Collectorates. According to Registration Districts the highest death-rate from respiratory diseases was recorded in Gujarát—6·33 per mille, and the lowest in Sind, ·37 per mille.

Taking each Collectorate separately and keeping the figures for rural and town circles distinct, the highest rural rate was recorded in Kaira Collectorate (8·61) and the lowest in the Panch Maháls (·52).

Among the towns the highest ratios were recorded against Ahmedabad (16), Kaira (14·93), Nadiád (12·18), Jumbusar (11·69), Bombay (10·32), Borsad (10·62), Bulsár (10·27), Broach (10·20) and Gogha (10), while the lowest were registered in Karáchi (·18), Dohad (·43), Ratnágiri (·56) and Kárwar (·66). The comparison between Karáchi and other large industrial centres of the Presidency is remarkable and instructive.

In comparing the rural and urban rates one fact stands out very prominently and that is that the mortality from respiratory diseases in Kaira Collectorate, both in the rural and urban areas, is very high.

There are conditions prevailing throughout the Kaira Collectorate which would favour a high death-rate from respiratory diseases, and particularly from tubercular phthisis. In the first place the density of population per square mile 499, is higher than in any other District. Secondly, owing to the high value of land for cultivation, as little space as possible has been given to town and village sites, with the result that houses are crowded together in a small area with few or no open spaces. Thirdly, the number of cattle in every town and village is very large, all of which are stalled on the village site and very commonly in houses used as dwellings, thereby adding to the overcrowding on space. Fourthly, throughout the fair season the air is laden morning and evening with smoke and dust arising from innumerable fires and from the crowds of cattle leaving or returning to the villages. From the insanitary conditions prevailing, this dust is charged with decomposing organic matter and germs. In a recent Sanitary Report on Nadiád town the Deputy Sanitary Commissioner comments on the high incidence of respiratory diseases, and draws special attention to the damp surroundings of the town and the wholesale pollution of air, water and food as disease producing causes.

The question of the extent of prevalence of tubercle among cattle in Kaira District would form an interesting subject of enquiry in view of the high mortality from respiratory diseases among the human population.

Other Causes.

Deaths from Other Causes.

53. The number of deaths recorded under the heading "Other Causes" in 1909 amounted to 128,495, of which 66,109 were among males and 62,386 among females against 124,275 in the previous year and 172,485, the decennial mean.

The number of deaths registered under this head since 1898 is given below :—

Year.	Number of deaths from other causes.	Year.	Number of deaths from other causes.
1898	176,335	1904	144,800
1899	254,872	1905	132,666
1900	342,027	1906	142,478
1901	179,694	1907	124,575
1902	134,952	1908	124,275
1903	144,510	1909	128,495
Total ...	1,232,390	Total ...	797,289
Mean ...	205,398	Mean ...	132,881

Deaths by Registration Districts and Collectorates.

54. The ratio per mille for the Presidency amounted to 6·95 against 6·72 in 1908 ; but great variations are noticeable in the case of individual Collectorates. In comparison with the rest of the Presidency high rates were recorded in the Southern Registration District and in parts of the Western District. These variations are of small importance depending as they do very largely on the care taken by those responsible for the registration of vital statistics.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

55. This section has been omitted from this report and appears separately.

SECTION VIII.

SENITARY WORKS—MILITARY.

56. No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

57. During the year ending 31st March 1909 there were 157 Municipalities in the mofussil with a population of 2,345,213 souls. The total net income of these Municipalities amounted to Rs. 81,51,611-2-3, of which sum Rs. 19,00,737-15-5 were expended on improving water-supply, drainage and conservancy within Municipal limits. The incidence of taxation and income per head of population have increased from Rs. 1-14-9 to Rs. 1-15-5 and from Rs. 2-10-10 to Rs. 3-0-6, respectively. Karáchi has the hightest rate of taxation (Rs. 7-0-9) and Ashta the lowest (Rs. 0-3-4).

Andheri, Santa-Cruz, Ghatkopar and Vile-Padle in the Northern Division, Chálisgaon, Manmád and Mádha in the Central Division and Bail-Hongal, Hangal and Dápoli in the Southern Division have been declared notified areas; thus there were 10 notified areas with an income of Rs. 35,859, of which a sum of Rs. 18,211 was expended leaving a balance of Rs. 17,648.

The Hánsot and Mándvi Municipalities in the Broach and Surat Districts were abolished in accordance with the desire of the residents in the Municipal area, and this brought about a reduction of 8,000 in the recorded population of Municipal districts.

Under the stimulus of liberal grants-in-aid from Government many improvements in water-supply and drainage are being carried out. Details of these works are given in Appendix I and it will be seen that in 33 towns in the Presidency such works are either in progress or under investigation.

By Government Resolution in the General Department, No. 5317, dated 27th August 1908, grants of Rs. 50,000 were allotted to Ahmedabad, Surat, Belgaum and Hubli Municipalities for town improvements, in clearing away insanitary areas, and in relaying them with roads, drains and all sanitary requirements. At the end of 18 months none of these Municipalities has any practical result to show for this grant.

There were 25 District Local Boards and 212 Táluka Local Boards. The area and population of the Boards remained unaltered except in Sind, where owing to the constitution of the Digri Táluka Local Board, certain changes in the area and population of adjoining tálukas resulted. The entire income of these Boards during the year ending 31st March 1909 amounted to Rs. 64,97,809-7-5, and out of this sum Rs. 4,16,058-5-2 were expended on water-supply and drainage. The expenditure on water-supply and water works showed an increase of Rs. 41,000. In the Northern Division the Boards spent nearly 1¾ lákhs on constructing new wells and tanks and repairing old ones. In the Central Division the charges on account of water-supply rose by Rs. 15,000, the increase having occurred principally in Násik and Ahmednagar

and to a smaller extent in Sátára. In the Southern Division 36 new wells were sunk and several old wells and tanks were repaired or deepened. The construction of a dam at Neral was completed during the year. In Sind 24 new wells were constructed. The District Boards of Bijápur and Dhárwár propose to pay out of their balances contributions of Rs. 50,000 towards the improvement of the water-supply of those towns.

18. The Bombay Village Sanitation Act, 1889, was in force in 279 villages against 265 up to the end of last year.

With a view to furnishing the information required by Government memorandum No. 7077, dated 15th December 1908, a reference was made to all the Collectors asking them for a detailed account of the work of the Village Sanitary Boards and Committees in their Districts. These Committees are on the whole unpopular and the contributions are only voluntary in name. With an income so uncertain and so variable from year to year, it is small wonder that few works of permanent improvement are carried out. The desire for sanitary reform is not wanting in every case, but under the most favourable circumstances the available funds barely suffice to support a modest conservancy establishment. Grants from Local and Provincial Funds added to a light tax would supply a Sanitary Committee with ample funds for the maintenance of a sufficient conservancy establishment and for sanitary improvements.

The Collector of West Khándesh states :—"On the whole these Committees are working fairly well."

The Collector of Poona states :—"Mr. Sedgwick, Assistant Collector, Eastern Division, Poona, remarks that these Boards and Committees can never be a success so long as popular contributions are looked to as a source of revenue and as controlling the amount of Government grants. He thinks that in villages having such Committees there should be a compulsory cess on lands or houses or both, for devotion to sanitary objects."

The Collector of Bijápur states :—"The Sanitary Committees are without exception in a very unsatisfactory state. They are highly unpopular and if the people were not pressed to subscribe, I do not believe that *voluntary* contributions would be forthcoming anywhere. They all waste money on keeping up establishments which do very little good. I think it would be much better if most of them ceased to spend money on establishments and remained in abeyance to be made use of in case any special sanitary work was required."

The Collector of Surat states :—"The want of more ample funds on the one hand and the almost entire absence of any general public demand for sanitary measures and improvements on the other, combine to make these Committees rather uninteresting and unprogressive."

The Collector of Broach states :—"The Sanitary Committees at Nicora and Jhadeshwar could secure no funds this year. The amount expended by them was out of the balance of the past year. The Sanitary Committee at Ilav is only nominal and has not performed any work since the year 1895. The residents of the place are, however, trying to raise a fund by popular contributions."

The Collector of Karáchi states :—"I am of opinion that it is better to show to the villagers the benefit of proper conservancy in a few selected villages than to entertain a single sweeper in a number of villages. In the latter cases the villagers are apt to shift the responsibility for keeping the surroundings of their houses clean from themselves on to the paid sweeper. The work is badly done and the sense of personal responsibility is weakened."

The Collector of Hyderabad states :—"The Sanitary Committees at Tando—Bago and Rajokhanani have worked well. The members are reported to have taken an interest in the sanitation of the village."

The Collector of Sukkur states :—"It is proposed to utilize the service of some of the Committees in laying out new building sites and alleviating the congestion of the present sites."

The Collector of Lárkhána states:—"The members generally take interest in sanitation and whenever there is laxity on their part, they are reminded of their duties."

The Collector of Upper Sind Frontier states:—"No sanitary work of any special importance was executed during the year. The Committees (specially at Shahdadpur) take a fair interest in sanitary matters."

The following statement shows roughly the financial position as a whole of the Sanitary Committees in various Districts during the year 1909-1910:—

Serial Number.	Districts.	Number of Sanitary Committees.	Income including balances.	Expenditure.	Closing balance.
			Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Khándesh West ...	6	4,300 10 9	2,512 0 11	1,788 9 10
2	Khándesh East ...	6	21,598 11 11	12,759 12 6	8,838 15 5
3	Násik ...	9	12,348 8 10	4,854 4 10	7,494 4 0
4	Thána ...	3	1,267 4 10	936 1 9	331 3 1
5	Kolába ...	8	2,796 1 6	1,553 9 7	1,242 7 11
6	Ahmednagar ...	12	9,183 1 2	6,810 13 2	2,372 4 0
7	Poona ...	2	360 15 4	260 14 0	100 1 4
8	Sholápur ...	2	1,280 12 6	573 0 0	707 12 6
9	Sátára ...	7	974 6 0	1,048 4 9	.....
10	Ratnágiri ...	3	2,155 6 3	1,690 7 4	464 14 11
11	Belgaum ...	6	5,918 3 3	3,834 7 7	2,083 11 8
12	Dhárwár ...	18	6,163 4 3	2,733 2 7	3,430 1 8
13	Bijápur ...	33	6,681 7 1	6,506 14 2	184 8 11
14	Surat ...	7	10,062 15 6	5,775 15 2	4,287 0 4
15	Broach ...	15	5,952 13 1	4,135 7 5	817 5 8
16	Kaira ...	16	9,513 0 0	6,643 0 0	2,870 0 0
17	Panch Mahals ...	3	2,899 1 6	1,790 14 10	1,108 2 8
18	Ahmedabad ...	7	5,193 12 2	2,357 9 10	2,836 2 4
19	Karáchi ...	23	4,703 4 9	4,144 15 9	558 5 0
20	Hyderabad ...	23	6,087 9 10	3,736 13 8	2,350 12 2
21	Thar and Párkar ...	19	13,166 0 0	7,868 0 0	5,298 0 0
22	Lárkhána ...	39	9,960 7 0	8,365 13 9	1,594 9 3
23	Sukkur ...	11	4,000 0 0	4,000 0 0	.....
24	Upper Sind Frontier ...	2	2,474 13 3	2,362 8 11	112 4 4

On the whole credit balances are shown in each District except Sátára and Sukkur, although individual Sanitary Committees vary considerably.

59. In accordance with the ruling of Government Resolution, General Department, No. 3152, dated 18th June 1909, there has been a reduction in the number of selected villages in which the "Village Sanitary Inspection Book" has been kept and it now stands at 2,639. During the year under report 419 entries have been made in these books by officers of the Sanitary Department, and the total entries made by officers of the Sanitary Department since 1898 number 5,054.

60. During the past five years complete sanitary surveys on a uniform plan have been made of all the larger towns which have come under inspection by the Deputy Sanitary Commissioners, and there is now on record a considerable amount of valuable material showing the chief sanitary wants of these towns. Altogether in 97 towns complete sanitary surveys have been made, of which 39 are in the Western Registration District, 27 in Gujarát, 16 in the Central and 7 in the Southern Registration District and 8 in Sind. As regards the action taken on the recommendations of these officers, the Deputy Sanitary Commissioner, Central Registration District, states:—"During the year under report two towns, Ahmednagar and Sangamner, which had been inspected according to the prescribed schedule within the last five years, were again inspected, and beyond a much delayed and very questionable scheme for the water-supply of the former, little or no notice appears to have been taken of the reports."

The Deputy Sanitary Commissioner, Southern Registration District, states:—"It appears that no action has been taken by any of the responsible officials except by the President, Byadgi Municipality, who reports the appointment of an independent Sanitary Inspector."

The Deputy Sanitary Commissioner, Gujárat Registration District, has prepared a statement in which are entered the results of enquiries either personal or through the local authorities as to the action taken on these sanitary reports, and he adds:—"The details entered in the remarks column show how very unproductive of results have been these careful and detailed inspections made by the Sanitary Department in Gujarát; and how exceedingly defective is the executive machinery upon which the Sanitary Department depends for the carrying out of urgently required improvements."

The Deputy Sanitary Commissioner, Sind Registration District, states:—"almost all the recommendations made by the Deputy Sanitary Commissioner have been wholly or partially carried out in 6 of the inspected towns."

Much time and energy have been spent in the preparation of these reports and it is disappointing and discouraging to have to record such meagre results. Financial difficulties no doubt hamper progress, but inability to carry out large schemes of improvement is no justification for indifference to minor works, and there are few Municipalities which spend what money they have to the best advantage.

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

61. The office of the Sanitary Commissioner was held by Lieut.-Colonel T. E. Dyson, I. M. S., from 1st January 1909 to the end of the year.

62. During the year the following Collectorates were visited:—Belgaum, Sátára, Káira, Surat, Násik, Poona and Ahmedabad.

The Sanitary Commissioner also attended the Malaria Conference held at Simla in October.

63. The tours of the Deputy Sanitary Commissioners are described in the Report on Vaccination.

T. E. DYSON, M.B., C.M., D. P. H.,
Lieut.-Colonel, I. M. S.,
Sanitary Commissioner.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE BOMBAY PRESIDENCY FOR THE YEAR 1909.

The Sanitary Board was constituted as under during the year :—

President.

Surgeon-General H. W. Stevenson, I. M. S., J. P., Surgeon-General with the Government of Bombay.

Members.

The Honourable Mr. W. T. Morison, C.S.I., I. C. S., Commissioner, Central Division, upto 14th May 1909 and again from 15th November to end of year.

G. Carmichael, Esq., I. C. S., Commissioner, Central Division, from 15th May to 14th November 1909.

The Honourable Mr. W. L. S. L. Cameron, C.S.I., J.P., Chief Engineer, Public Works Department, upto 27th November 1909.

A. Hill, Esq., C.I.E., F.C.H., M.I.C.E., J. P., F.U.B., Chief Engineer, Public Works Department, from 28th November to end of year.

Lieutenant-Colonel T. E. Dyson, M.B., C.M., D.P.H., I. M. S., Sanitary Commissioner for the Government of Bombay.

F. L. Sprott, Esq., C. E., F.U.B., Sanitary Engineer and Secretary upto 31st March 1909.

H. V. R. Kemball, Esq., C.E., F.U.B., Sanitary Engineer and Secretary from 1st April to end of year.

2. During the year under report, the Sanitary Board held five meetings on the 15th March, 5th and 18th August, 2nd September and 28th October 1909, and among other matters considered proposals for improvements to the water-supplies of Ahmednagar, Alibág, Bijápur, Broach, Bulsár, Godhra, Hubli and Sholápur, and questions in connection with the drainage of the Vaccine Depôt at Belgaum and the Police Lines at Bhamburda. The effect of local conditions on sewage disposal by the bacterial method, especially in small installations, was also considered and proposals were made to Government for the institution of experiments with a view to determining the same.

3. Works in progress included the following :—

Water-supply in progress.

(1) *Pandharpur.*—During the year under report considerable progress has been made with this water-supply. The infiltration wells have been sunk nearly to the full depth. About two-thirds of the main connecting these with the jack well, the rising main and the distribution mains have been laid. The pure water tank has been completed with the exception of the roofing. The pumping plant has been delivered at site. It is hoped that the work will be completed before the next monsoon. The expenditure of the year amounted to Rs. 2,24,000.

(2) *Násik.*—The estimates, amounting to Rs. 3,54,500, for this water-supply were sanctioned by Government late in the year. In addition, Government directed the preparation of plans and estimate for a weir above the head works to ensure a plentiful supply of pure water to the ceremonial bathing cisterns throughout the year, the cost of this weir being roughly put at Rs. 40,000. Against the whole scheme of Rs. 3,94,500 Government have been pleased to promise a grant-in-aid of Rs. 2,44,500 (including the share for the supply to Government buildings). The work of construction has been entrusted to the Executive Engineer, Násik District, and the Municipality allotted Rs. 35,000 for expenditure against which a sum of Rs. 18,000 was spent.

(3) *Dhárwár.*—Considerable progress was made with this water-supply which was sanctioned in 1908. The earth-work of the impounding reservoir was nearly completed and considerable progress was made with the waste weir, outlet tower and high service reservoir. The pumping plant and steel mains were delivered on the work before the close of the year. The expenditure of the year amounted to about Rs. 45,000.

(4) *Bijápur.*—An estimate, amounting to Rs. 4,26,800, for providing a water-supply received the sanction of Government, who were pleased to promise a grant-in-aid of Rs. 2,00,000, and construction was entrusted to the Public Works Department. Owing to delay in obtaining the land required actual construction was not commenced before the close of the year.

(5) *Hyderabad, Sind.*—The scheme for improving the water-supply referred to in the last year's report, estimated to cost Rs. 2,96,000, was sanctioned by Government, and work on it has commenced, the expenditure of the year being about Rs. 79,000. Government were pleased to remit the charges on account of establishment and tools and plant as a grant-in-aid. In this scheme provision was not made for rebuilding the Fort Reservoir as hopes were entertained that the leaks had been stopped. They have broken out again, however, and the foundations have been opened up and inspected. Owing to the faulty design, satisfactory repairs are impracticable, and it will be necessary to rebuild it on a better site.

(6) *Karáchi.*—The distribution system has been extended at a cost of Rs. 24,000. A scheme for further extending the distribution system, improving the supply at the head works, and providing a new service reservoir has been drawn up and Government has been asked to sanction the raising of a loan of Rs. 8,10,000 for carrying it out.

(7) *Ahmedabad.*—Two additional supply wells, Nos. 9 and 10, commenced in 1908 to provide an increased supply, were completed during the year. Owing to the steady increase in the demand it has been found necessary to work two of the three engines night and day and the third engine for 16 hours daily. The spare power provided for breakdowns has thus practically disappeared and further pumping power must be provided. The management of this pumping plant has not been wise, but expert advice has now been obtained.

(8) *Dhulia.*—The filter beds referred to in the last year's report were completed at a cost of Rs. 37,000 and handed over to the Municipality. The town has been surveyed and a plan prepared showing all details of the distribution system. This distribution system was inspected and advice was given to the Municipality to enable them to maintain it in efficient working order.

(9) *Ratnágiri.*—Detailed plans and estimates for the improvement of the water-supply were prepared by the Public Works Department and submitted to Government. Sanction was not received before the close of the year but commencement of work on certain items was authorized. A sum of about Rs. 5,000 was spent on the tunnel and the pipes, etc., were ordered.

(10) *Jacobabad.*—The Municipality had contemplated a large combined scheme for water-supply and drainage, but, as the levels were against the latter and neither could ever be financed, it has decided to improve the existing supply from wells, and Rs. 2,000 have been spent on the work during the year.

Drainage.

(11) *Pandharpur.*—The work referred to in the last year's report was continued by the Municipality and a sum of Rs. 8,000 was spent in completing the riverside collecting drain which will reduce the pollution of the river frontage where the pilgrims bathe and drink. Progress was delayed by changes in staff.

(12) *Karáchi.*—The drainage extension works have been continued during the year and the expenditure upto 31st December 1909 amounted to Rs. 9,54,855. Within the next three months all quarters of Karáchi except the Civil Lines, Garden, Lyari and Muchi Meani quarters will have been connected with the drainage system, and it is the intention of the Municipality to connect up the Muchi Meani quarter without delay.

(13) *Ahmedabad.*—The Male Training College was connected with drainage system, Government contributing about half of the cost. About 400 more houses were connected with the system at a cost of about Rs. 4,500. A sum of about Rs. 6,000 was expended in extending the distribution system to new parts of the sewage farm, a very necessary work, as the older portion is now sewage sick.

(14) *Hyderabad, Sind.*—A small expenditure was incurred in extending the surface drainage system and an estimate was prepared and sanctioned for an extension of the same, about 5,800 feet in length, in the Hirabad Quarter, the construction of which is now in hand. Progress in filling and draining the insanitary hollows in the vicinity of the city was confined to the acquisition of land, the completion of the earth-work and laying part of the line for the tramway, and other preliminary arrangements. In all about Rs. 16,000 were expended on drainage works during the year.

4. The only work sanctioned but not commenced was the work of providing drains for the town of Kurla. A partial scheme of surface drainage, estimated to cost Rs. 48,000 was sanctioned by Government who were pleased to promise a grant-in-aid of Rs. 24,000.

5. Government have been pleased to give during the year the following grants-in-aid for sanitary works in the Presidency :—

Name of work.	Amount of grant.	Authority of Government Resolution.
	Rs.	
(1) Pandharpur water-supply	1,50,000	Government Resolution, General Department, No. 2856 of 3rd June 1909.
(2) Aden water-supply	30,000	Government Resolution, General Department, No. 3353 of 30th June 1909.
(3) Improvement to Hyderabad (Sind) water-supply	58,000	Government Resolution, General Department, No. 3740 of 22nd July 1909.
(4) Bijápur water-supply	70,000	Government Resolution, General Department, No. 4989 of 25th September 1909.
(5) Providing drains for the town of Kurla ...	24,000	Government Resolution, General Department, No. 5235 of 7th October 1909.
(6) Násik water-supply	35,000	Government Resolution, General Department, No. 5862 of 16th November 1909.

Government have also been pleased to remit the balance Rs. 2,31,908 of the debt due from the Poona City Municipality to assist it in financing the combined water-supply and drainage scheme referred to in last year's report.

6. The following projects for sanitary works were under investigation during the year :—

(1) *Poona City Water-Supply and Drainage Scheme.*—The question of financing this scheme has been under consideration during the year and generous proposals have been made to the Municipality. The estimates have been revised so as to include only the portions now proposed to be undertaken.

(2) *Sholápur—Improvements to the Water-Supply of.*—Rough proposals were prepared for increasing the supply of this town to the extent rendered necessary by the increase of population and the establishment of a thriving Mill industry. The Municipality adopted these proposals and the preparation of the detailed plans and estimates has been put in hand.

(3) *Hubli Water-Supply.*—The scheme for improving this water-supply was divided into three parts. The first two were sanctioned in 1908. Detailed plans and estimate for the third part, which provides for increasing the catchment area of the impounding reservoir, have now been prepared by the Executive Engineer for Irrigation, Dhárwár District, under the instructions of the Sanitary Engineer and are now before Government for sanction. Financial difficulties have delayed the commencement of construction but it is hoped that these difficulties will now be overcome.

(4) *Igatpuri Water-Supply.*—A scheme estimated to cost Rs. 1,31,300 was prepared by the Executive Engineer, Násik and Ahmednagar District under the instructions of the Sanitary Engineer and has been forwarded to the Municipality for consideration.

(5) *Godhra Water-Supply.*—A rough scheme has been prepared in which the supply is proposed to be taken from infiltration wells in the river. It is estimated to cost Rs. 2,00,000 and has been forwarded to the Municipality for consideration.

(6) *Sukkur Water-Supply.*—The rough scheme referred to in last year's report was, after much hesitation, agreed to by the Municipality, and the preparation of detailed plans and estimates has been taken in hand by the Executive Engineer, Shikárpur Canals District under the instructions of the Sanitary Engineer.

(7) *Broach Water-Supply.*—There has been great difficulty in working out a practicable scheme as the Nerbudda, on the right bank of which Broach is situated, is subject to tidal influence for about 14 miles above the town. The first scheme prepared provided for a supply from a small river on the left bank of the Nerbudda, but it had to be abandoned owing to the excessive cost of taking the main over the Railway Bridge. The cost of a main 14 miles in length is so great that it has been decided to await the result of a trial deep boring before investigating further the only alternative of taking the supply from the Nerbudda above the tidal influence.

(8) *Dholka Water-Supply.*—A rough scheme was prepared but the supply proposed to be taken from shallow wells proved to be bad. Any scheme taking the supply from the Sabarmati is impracticable on account of its cost, and the Municipality has been advised to await the result of a deep trial boring.

(9) *Kalyan Drainage.*—A rough scheme for surface drainage, estimated to cost Rs. 1,47,000 was prepared but has been abandoned as the Municipality is unable to finance it.

(10) *Surat Drainage.*—A survey of the town with levels was carried out by the Executive Engineer, Surat District, for the purpose of investigating a scheme of surface drainage. These investigations are in hand.

(11) *Násik Drainage.*—In sanctioning the water-supply scheme Government made it a condition that the outfall of the existing partial sewage system should be shifted some distance down stream to avoid pollution of the water in which the pilgrims bathe and which they drink. The levels render this impracticable and at the request of the Municipality surveys have been made to ascertain the most economical practicable solution.

(12) *Panvel Drainage.*—A rough estimate of the cost of providing surface drainage for the town of Panvel has been made out and amounts to Rs. 81,000. It is under consideration by the Municipality.

(13) *Shikárpur Drainage.*—Rough proposals were drawn up for partially or wholly filling some of the hollows round the town in which storm and sullage water stagnates, and for leading the sullage water to a sewage farm at a distance from the town, with the object of reducing the very high death-rate from fever. These proposals were forwarded to the Municipality for consideration.

7. In addition, the Sanitary Engineer's staff commenced the investigation of schemes for water-supplies for the towns of Belgaum, Borsád, Bulsár, Karmála, Malegaon, Nandurbar, Nipani, Viramgaon and Yeola, and for the drainage of Belgaum, Malegaon, Nandurbar, Thána and Rander.

8. *General.*—During the year an experimental boring was sunk at Sanand by an expert employed by the Irrigation Department. A plentiful sub-artesian supply of water was found at a depth of 300 feet, and this offers a reasonable hope of a solution of the very difficult question of finding sources of pure water-supply in Guzerát.

Another interesting experiment was the use of an electrical machine for tracing underground streams of water. This instrument was introduced by the Agricultural Department and, through the kindness of the Director and the Principal of the Poona Agricultural College, the line of an underground stream was by its means successfully traced between two points at Mahin-Kelwa, where it was known to exist. If this success is confirmed, the instrument may prove very useful and economical in finding sources of supply in the trap formation.

9. *Sanitary Engineer.*—Towards the end of the year Government were pleased to strengthen considerably the staff of the Sanitary Engineer in order to enable him to cope with the increased work, arrange for the inspection of existing installations and to advise Municipalities on their efficient working. The Northern Sub-Division was formed and entrusted to Ráo Sáheb S. R. Bhagwat, Honorary Assistant Engineer. Advice has been given to the Municipalities of Násik and Dhulia with satisfactory results. It is hoped that very considerable economy may be effected in the working of pumping plants.

10. The Sanitary Engineer visited all places in the Presidency where his presence was required to give advice or to inspect works in progress or existing installations. Under the orders of Government he visited Hyderabad (Deccan) to advise the Resident in regard to the proposed intercepting sewer which is to pass close to the Residency. Lectures on sewage disposal were given to the students of the College of Science by him and by Mr. Mandy on the Poona Drainage Scheme.

H. KEMBALL, C.E.,
Secretary to the Sanitary Board,
Bombay Presidency.

Poona, 16th May 1910.

APPENDIX II*a*.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31ST DECEMBER 1909.

I.—SUMMARY.

The following is a summary of the inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels, and vessels lying in the harbour and docks, during the year ending 31st December 1909 :—

954 vessels of all sorts with 177,870 crew and passengers were examined as against 2,427 vessels with 235,066 crew and passengers during the preceding year.

The clothing and bedding of 102,253 crew and passengers of outgoing and incoming vessels were disinfected. Of these 84,955 were Asiatic and African crew, third class and deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India. 16,403 were crew, pilgrims and passengers who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while lying in the Port.

45 vessels on which cases of infectious diseases had occurred were disinfected. 25 vessels which carried pilgrims to Jeddah were thoroughly cleansed and freed from rats and cockroaches by means of sulphur dioxide gas generated in a Clayton apparatus. In all 70 vessels of all sorts were disinfected. 3,813 persons among whom cases of small-pox had occurred were vaccinated. Owing to the number of cases of small-pox in Bombay in the early part of the year the Shipping Companies were advised to get all the members of their crew vaccinated, or revaccinated, immediately after they signed on the articles. The result of this advice was that 1,437 crew submitted to vaccination or revaccination. Thus in all 5,250 persons were vaccinated.

At the outward and inward inspections, and on board vessels lying in the harbour or docks 5 cases of plague, 15 cases of cholera, 108 cases of small-pox, 1 case of measles, 8 cases of chicken-pox, 2 cases of jigger and 2 cases of scarlatina were detected.

II.—OUTGOING VESSELS.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P, dated the 14th June 1899, and No. 2671-P, dated the 2nd October 1902, the medical examination of all vessels, crew and passengers proceeding to ports out of India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with berth accommodation, of fourth class and deck passengers, and of all Asiatic and African servants who sailed on vessels bound for ports out of India were carried out immediately before they left the Port of Bombay.

3. Vessels with their crews and passengers which left for ports in India and Burma were exempt from the medical inspection in accordance with Government Resolution, General Department (Plague), No. 1758-P, dated 19th November 1908.

4. During the year under report 838 outward bound vessels (including Native sailing craft) with 74,208 crew and 68,369 passengers, or a total of 142,577 persons, were inspected as against 2,299 vessels with 98,097 crew and 93,597 passengers, or a total of 191,684 persons, during the preceding year. The considerable reduction in the number of vessels, crews and passengers inspected during the year 1909 as compared with those inspected during the previous years is due to the abolition of the inspection of vessels bound for Indian Ports.

5. The bedding, boxes and suspected articles of clothings, etc., of 45,172 Asiatic and African members of crew and of 37, 230 third, fourth class and deck passengers, and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the clothing, bedding and other effects of 2,331 crew and 222 passengers who sailed in Native craft for ports out of India were also disinfected. Thus the total number of outward bound crew and passengers whose clothing, bedding, etc., were disinfected comes to 84, 955 during the year under report as against 72,094 during the year 1908.

6. Disinfection of the clothing and bedding of the crew and passengers of some vessels which proceeded to ports out of India *vid* Karáchi was not carried out at Bombay as the Agents preferred to have the disinfection done at Karáchi while the ships were loading cargo there.

7. A few vessels had cases of infectious diseases among their crews or passengers within 12 days prior to their departure from this Port. The Bills of Health granted to them mentioned the illness which occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of the disease on board or at other ports.

8. Whenever plague developed among members of crews or passengers who were not allowed to sail on vessels for ports out of India, Government were informed of the fact in order that the authorities at the vessel's next port of call might be made acquainted of the occurrence by wire.

III.—Incoming Vessels.

9. In accordance with the rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act, III of 1901, *vide* Notification, General Department (Plague), No. 1645-P, dated the 12th March 1900, and Notification, General Department, No. 625, dated the 1st February 1905, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P, dated the 31st March 1900, medical inspection and disinfection of vessels which were actually infected or suspected to be infected with plague, yellow fever, cholera, small-pox, chicken-pox, measles or scarlatina were carried out. All vessels which arrived from East African Ports were also inspected for the detection of cases of jigger and sleeping sickness.

10. 95 incoming vessels of various kinds with a crew of 7,625 persons and 27,668 passengers were inspected during the year. Of the 95 vessels inspected 24 were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. Two troop-ships arrived with 446 crew and 3,066 passengers among whom 2 cases of scarlatina had occurred. The patients were taken charge of by the Military Authorities for treatment in their hospital. The clothing and the bedding of the crew were thoroughly disinfected. One vessel arrived from East African Ports with 224 passengers, among whom 2 cases of jigger had occurred. The cases had been landed at Porbandar. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. The clothing and bedding of the crew were also disinfected. 14 vessels arrived from Jeddah with 1,052 crew and 9,849 pilgrims, among whom 1 case of plague and 99 cases of small-pox occurred. Of the 99 cases of small-pox 59 were landed at Bombay and sent to hospital, 1 died on arrival here, 20 died during the voyage and the remaining 19 were landed at intermediate ports. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations up-country. The vessels were disinfected and were also claytonised by the apparatus provided for the destruction of rats and cockroaches. 3,813 persons including 84 crew who were willing to get themselves vaccinated were vaccinated. The remaining 7 vessels with 1,089 crew and 608 passengers had on board on arrival or during the voyage 2 cases of plague, 1 case of cholera, 1 case of measles and 3 cases of chicken-pox. The clothing and bedding of the persons among whom the cases had occurred were disinfected. The vessels were disinfected and those on which cases of plague occurred were thoroughly fumigated by the Clayton apparatus.

IV.—Infectious Diseases on Vessels in the Harbour and Docks.

11. During the year 21 vessels including Native sailing craft which were lying in the Victoria and Prince's Docks or off the various bandars in the harbour, had on board 2 cases of plague, 14 cases of cholera, 9 cases of small-pox and 5 cases of chicken-pox. A dock labourer was found dead in the "B" Shed, Prince's Dock, and the cause of death was attributed to plague. The clothing and bedding of the 895 crew of these vessels were disinfected. All these vessels and those mentioned in the previous paragraph of this report, as well as the place where the dock labourer was found dead, were thoroughly disinfected in accordance with the regulations issued under the Epidemic Diseases and the Indian Ports Acts. The particulars of the cases above referred to are shown in Statement No. 2 which is appended to this report.

V.—Port Observation Camp.

12. The Port Observation Camp was dismantled owing to the abolition of the medical inspection of vessels, crew and passengers leaving the Port of Bombay for Indian Ports. Whenever it was found necessary to remove persons at the medical inspections held in connection with the departures for ports out of India, the rejected were allowed to return to their homes after the vessel had sailed.

VI.—Disinfection of Ships.

13. During the year under report 70 vessels of all sorts were disinfected under the personal supervision of the Port Health Officer, or of one of the Port Health Staff. Of the 70 vessels 25 were outward bound pilgrim-ships and 14 were small-pox infected ships which brought pilgrims from Jeddah to Bombay.

14. In addition to the abovementioned number 11 other vessels were fumigated by means of the Clayton process at the request of their owners or agents so as to free them from rats. Ships partially or completely laden with cargo take a very much longer time to free them from live rats and cockroaches than when they are empty, as the sulphur fumes are absorbed or condense much quicker when there is cargo on board. Ships which have been lying idle for a time and ships which have no food-stuffs on board have few rats in the holds. In such cases the rats usually shelter on the upper deck, the deck-houses, the boats, behind the deck-latrines, and in

other places where it is practically impossible for the sulphur fumes to penetrate or to be confined. In such cases food suitable for rats was placed in the hold, and all likely places on the upper deck were thoroughly searched for the rodents for some days before fumigation was commenced. The rats were thus induced to remain in the holds where they were killed by the sulphur gas.

15. The vessels on which cases of plague occurred had their holds thoroughly fumigated by means of the Clayton apparatus.

16. The cholera-infected ships had their drinking water tanks emptied and thoroughly disinfected inside with a solution of Permanganate of Potash before they were refilled with a fresh supply of drinking water.

17. The Port Disinfection Station received on every Monday clothing and bedding from various hospitals for disinfection. 442 bundles containing such clothing and bedding were disinfected against 288 during the previous year.

VII.—General Health of the Shipping.

18. During the year under report 1,041 persons connected with the shipping were admitted into the various hospitals in the city. The Saint George's Hospital admitted 518 European patients, of whom 20 died, 480 were discharged cured, and 18 remained under treatment after the 31st December 1909. The Jamsetji Jijibhoy Hospital admitted 105 Native patients, of whom 22 died, and the Goculdas Tejpal Hospital 378 Natives, of whom 43 died.

19. 17 cases of Typhoid occurred among the crews of ships while lying in Bombay. It was found that in some instances the disease had been spread by "Typhoid Carriers" who were on board the vessels. It would be well to make certain that all cooks and waiters on board of ships, and more especially on ships carrying a large number of European passengers, or troops, are free from the Typhoid bacillus. This is rather an important question and is one which I feel certain will have to be dealt with sooner or later.

20. No deaths occurred in connection with the cleansing of bilges of ships during the year. There were 193 accidents on board of vessels which were lying in the harbour or docks. Of these 32 proved fatal.

VIII.—Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

21. In accordance with Government of India's Notification, Home Department (Sanitary), No. 1606, dated the 13th July 1908, and Government Resolution, General Department, No. 4361, dated the 18th August 1909, the Port of Bombay was opened for the embarkation of Mahomedans making a pilgrimage to Mecca *vid* Jeddah. Before the pilgrims embarked the ships were thoroughly cleansed and freed from rats by means of the Clayton process under the personal direction of the Port Health Officer. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark on the ships by which they intended to sail for Jeddah.

22. The names of the ships, the number of pilgrims carried by them, and the dates on which they left Bombay for Jeddah are mentioned below :—

	Name of vessel.	Number of pilgrims sailed.	Date of departure.
1.	S. S. "Rahmani"	794	29th August 1909.
2.	S. S. "Markgraf"	989	8th September 1909.
3.	S. S. "Islami"	824	9th do.
4.	S. S. "Hooseinee"	448	16th do.
5.	S. S. "Majidi"	794	25th do.
6.	S. S. "Budrie"	870	28th do.
7.	S. S. "Firoozi"	926	2nd October 1909.
8.	S. S. "Alavi"	846	12th do.
9.	S. S. "Rahmani"	794	17th do.
10.	S. S. "Markgraf"	979	21st do.
11.	S. S. "Islami"	824	25th do.
12.	S. S. "Haidari"	589	30th do.
13.	S. S. "Shah Ameer"	751	4th November 1909.
14.	S. S. "Majidi"	803	8th do.
15.	S. S. "Siberien"	679	10th do.
16.	S. S. "Fakhri"	988	18th do.
17.	S. S. "Firoozi"	924	19th do.
18.	S. S. "City of Vienna" ...	1,053	21st do.
19.	S. S. "Alavi"	845	22nd do.
20.	S. S. "Rahmani"	795	23rd do.
21.	S. S. "Shah Jehan"	1,410	24th do.
22.	S. S. "Markgraf"	990	25th do.
23.	S. S. "Budrie"	565	27th do.
24.	S. S. "Najmi"	957	29th do.
25.	S. S. "Saifi"	619	29th do.
	Total ...	21,056	

23. It will be seen that 21,056 pilgrims left during the season. The number was above the average.

24. The classification of the pilgrims is as follows:—

275	Bombay City.	4	French India.
1,838	Bombay Presidency (including Sind).	2	Tibet.
763	Madras Presidency.	785	Chinese Territory.
1,192	Bengal Presidency (including Behar).	1,338	Afghanistan.
7,232	Eastern Bengal and Assam.	203	Persia.
1,729	United Provinces and Oudh.	363	Russian Territory.
2,284	Punjab and North-West Provinces.	178	Arabia.
229	Central Provinces.	6	Africa.
153	Burma.	93	Java.
1,074	Native States of British India.	7	Turkey.
		1,308	Unclassified.
	Total ...	21,056	

25. In years gone by and before plague broke out pilgrims left Bombay at any time of the year. Those who left early in the year usually proceeded to Medina and later on to Mecca, while those who left later in the season proceeded first to Mecca and after the Haj day many of them paid a visit to Medina before returning to India.

26. Most pilgrims are under the impression that they are allowed to embark at Bombay between certain dates only, with the result that during the last month of the season a very large number of pilgrims arrive in Bombay where they have to remain until ships are ready to take them to Jeddah. This occasionally leads to overcrowding in Bombay, unnecessary expense, risk of infectious disease, and missing of the Haj.

27. Many pilgrims were left in Bombay after the last pilgrim season and had to return to their homes as they were unable to find ships to take them to Jeddah in time for the Haj. The price of a deck ticket had gone as high as from Rs. 60 to Rs. 80 or more, which many of the pilgrims were unable to pay. It would be advisable if Government made it widely known that pilgrims are allowed to depart at any time of the year, and also impressed on them the advantages of starting early in the season. By so doing the overcrowding in Bombay during the last month of the season, the possible outbreak of infectious diseases among them high steamer fares, the risk of missing the Haj, and other evils would be avoided or minimised.

28. A fully equipped plague observation station, capable of receiving an entire ship-load of pilgrims from a plague-infected vessel for treatment under Article 21 of the Paris Convention, was established at Perim. All the pilgrim-ships, after having been inspected at Aden or Perim, called at Camaran where they landed their passengers to undergo observation according to Turkish rules before the Turkish Authorities allowed them to proceed to Jeddah.

29. As far as I have been able to ascertain, no case of plague or cholera occurred among the pilgrims who left for Mecca during the last season, either while on board of ship between Bombay and Jeddah or while in quarantine in Camaran. When outbreaks of plague occur among the pilgrims congregated at Mecca it should be remembered that the disease is, and has been for generations, endemic in the Hadramaut and in part of the Red Sea Coast of Arabia, as otherwise other countries may be blamed unjustly for the spread of the disease.

30. One of the pilgrim ships had a case of small-pox between Bombay and Aden and in consequence the vessel was not allowed to drop anchor at Aden when she arrived at that Port. She was ordered to proceed to Perim without delay. On reaching Perim the passengers were ordered to be landed as the ship had to be disinfected. The ship was thoroughly disinfected and claytonised after which the passengers were taken on board. The small-pox case was left at Perim and the remaining pilgrims sailed for their destination.

31. From the medical diaries of the doctors in medical charge of pilgrim-ships it appears that there were 116 deaths between Bombay and Jeddah. The causes are attributed to fever, old age, general debility, diarrhoea, dysentery, infantile convulsion, cardiac failure, sunstroke, lobar-pneumonia, infantile diarrhoea, privation and phthisis. The number mentioned above does not include the deaths which took place at Camaran while the pilgrims were undergoing quarantine.

32. During the last pilgrim season no doctor was appointed to the medical charge of a pilgrim-ship unless he was in possession of either a degree, or at least the license of a recognized Indian University, or the qualification of a Military Assistant Surgeon. In the case of a medical officer with a British qualification his name was on the medical register, and no doctor was given a license for more than one voyage at a time. By this system the Port Health Officer had a considerable amount of control over the medical officers of pilgrim-ships. The

medical officers who performed their duties satisfactorily had no difficulty in getting their licenses renewed for a second or more voyages. On the whole, the medical officers of pilgrim-ships during the past season were much above the average standard of the men usually found on such ships, and so far no complaints have been received from the Camaran or Jeddah Sanitary Authorities.

B.—Inward Traffic.

33. During the year under report 14,330 pilgrims of the previous year's Haj arrived from Jeddah in 24 vessels. The names of ships and the number of pilgrims brought by each vessel, as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay, are tabulated in Statement No. 3 which is attached to the report.

34. The total number of deaths which occurred at sea among the returning pilgrims was 279. The chief causes were old age, general debility, small-pox, dysentery, diarrhoea and privation. Assuming that the return voyage from Jeddah to Bombay takes, on an average, 14 days, the mortality among the pilgrims works out at the rate of about 507·5 per thousand per annum. This death-rate is simply startling and shows, when compared with the comparatively small death-rate during the outward voyage from Bombay to Jeddah, that the pilgrims undergo much hardship and privation while visiting the holy cities. This heavy mortality during the returning pilgrim season continues year after year. Among the Indian pilgrims for Mecca are to be found infants of a few days old, persons of extreme old age, the poor, blind, crippled, decrepit and frequently the dying. It is therefore no wonder that the mortality among them is heavy.

35. 14 pilgrim-ships had, during their voyage, from Jeddah to Bombay, 1 case of plague and 99 cases of small-pox. The case of plague was a coal-trimmer who was removed to the Arthur Road Hospital from the disinfection shed for high temperature when his kit was being disinfected. He developed plague and was transferred to the Marátha Hospital for treatment. Of the 99 cases of small-pox three occurred among the crew and the remaining 96 among the pilgrims. Of these 20 died during the voyage and 19 were landed at intermediate ports. 60, including the three which occurred among the crew, were found on board on the arrival of the vessels at Bombay and were sent to the Arthur Road Hospital for treatment. Vaccination was offered to the pilgrims among whom small-pox had occurred but the majority of them would not accept the offer. After considerable persuasion and some example 3,729 pilgrims allowed themselves to be vaccinated. In addition to this number 84 crew were vaccinated.

36. 14 small-pox infected vessels were subjected to thorough fumigation by the Clayton apparatus and 2 additional ships were claytonised at the request of the owners. 9,849 pilgrims among whom small-pox appeared had their clothing and bedding disinfected before they were handed over to the Protector of Pilgrims for despatch to their homes. The effects of 1,052 crew of the infected ships were also disinfected.

IX.—Emigration Traffic.

37. Owing to the prevalence of plague in the City of Bombay the Emigration Traffic has been suspended since the year 1897.

X.—Sanitary State of the Harbour and Foreshore.

38. The sanitary state of the harbour and of the various bandars, basins and docks was fairly satisfactory.

XI.—Cholera, Small-pox and Plague in the City of Bombay.

39. During the year under report 727 deaths from cholera, 473 deaths from small-pox and 5,197 deaths from plague occurred in the City of Bombay.

XII.—Establishment.

40. The following list shows the names of the Medical Officers and subordinates who did duty under the Port Health Officer from time to time during the year :—

Names.	Period of service.
	Y. m. d.
Dr. H. C. Venis	0 5 24
Dr. (Miss) S. Smith	1 0 0
Assistant Surgeon H. F. Otto, I.S.M.D.	1 0 0
Civil Medical Assistant B. M. Bhatt	1 0 0
Do. F. H. Anklesaria	1 0 0
Do. C. B. Gandhi	0 4 8

41. The Medical Officers and subordinates referred to in the foregoing table carried out their duties with their usual zeal and tact and to my entire satisfaction. Their work was heavy during the pilgrim season.

42. The Police Staff under Inspector A. Dixon worked with credit to themselves and satisfaction to me.

43. Mr. Ramrao G. Kamalakar and the marginally noted members of the office staff under him performed their duties most satisfactorily. The appointment of the fourth clerk was abolished early in the year on reduction of work owing to the abolition of the medical inspection of vessels, crew and passengers proceeding to Indian Ports.

Mr. Shamrao S. Dhuradhar.
Mr. Dattatraya V. Gokhale.

44. The office peons and all the members of the disinfection and steam launch establishments worked satisfactorily.

45. Mr. M. I. Tungekar, the Protector of Pilgrims, Miss G. M. A. Jessop, the Lady Inspector who was detailed to count pilgrims from time to time, Mrs. Currie, Lady Superintendent of Pilgrims, Mr. C. F. Smith, the Inspector of Preventive Service, and the Dock Police under Superintendent J. Walton rendered much help to the Port Health Staff while carrying out the inspection and disinfection of pilgrims, and in connection with their despatch from the disinfection station to the steamers by which they travelled.

46. The Shipping Agents and Commanders of vessels, as a rule, observed the regulation and carried out cheerfully the orders framed in connection with the Paris Sanitary Convention.

J. CRIMMIN, V. C., C. I. E., D. P. H., Lieut.-Colonel, I. M. S.,
Health Officer of the Port.

Bombay Port Health Office: Town Customs House,
dated 19th January 1910.

TABLE No. 1.

The following tabular statement gives a summary of the Shipping of the Port of Bombay and the work in connection therewith for the year ending 31st December 1909 :—

Vessels including Country Craft.	Number of Vessels inspected.	Number of Persons including crew of vessels.	Number of Native crew and third class or Deck passengers disinfected.	Number of Vessels disinfected and fumigated.	Number of Persons vaccinated.	Diseases and number of cases of each.						
						Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Scarlatina.
1909.												
Entered	95	35,293	16,403	24	3,813	2	1	99	1	3	2	2
Left	838	142,577	84,955	25	1,437	...	...	...	...	...	...	...
In harbour during the year ...	21	.....	895	21	...	3	14	9	...	5	...	...
Total ...	954	177,870	102,253	70	5,250	5	15	108	1	8	2	2
Total for 1908 ...	2,127	235,066	91,340	65	343	10	5	166	17	9	1	3

* Cases of infectious diseases caught on vessels which left the port are shewn under those in harbour.

TABLE No. 2.

The following table includes all steamers, square-rigged vessels and Native craft which became infected while lying in the Port of Bombay during the year 1909 :—

Months.	Number of persons who were attacked with plague at Bandars and in Docks.	Total Number of infected vessels.	Total number of cases of infectious disease in the Bombay Harbour.					Number of crew disinfected.
			Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	
1909.								
January	.....	1	...	...	...	...	3	69
February	1	3	1	...	2	...	...	51
March	.....	2	...	...	7	...	...	170
April	.....	7	...	6	...	...	1	193
May	.....	2	1	...	...	...	1	343
June	.....	...	...	...	...	...	...	...
July	.....	1	...	2	...	...	...	5
August	.....	3	...	4	...	...	...	55
September	.....	1	...	1	...	...	...	4
October	.....	1	...	1	...	...	...	5
November	.....	...	...	...	...	...	...	...
December	.....	...	...	...	...	...	...	...
Total ...	1	21	2	14	9	...	5	895
Total for 1908 ...	1	15	4	2	8	1	2	1,215

TABLE No. 3.

Statement showing the number of pilgrims who returned to Bombay from Mecca by vessels during the year 1909 :—

No.	Name of Ship.	Date of Arrival.	Number of Crew inspected.	Number of pilgrims inspected.	Number of deaths from all causes during voyage.	Number of cases of infectious diseases on board on arrival and during voyage.		Number of persons vaccinated.	Remarks.
						On arrival.	During voyage.		
						Small-pox.	Small-pox.		
1	S. S. "Ahmadi" ...	26th January 1909 ...	70	725	10	...	...	...	
2	S. S. "Xema" ...	26th do. ...	79	585	21	8	2	307	
3	S. S. "Tangistan" ...	27th do. ...	46	887	24	3	...	...	
4	S. S. "Budrie" ...	28th do. ...	75	846	12	3	1	300	
5	S. S. "Mahommadi" ...	30th do. ...	62	691	22	4	1	...	
6	S. S. "Ipswich" ...	30th do. ...	70	435	19	2	5	...	
7	S. S. "Majidi" ...	31st do. ...	75	794	26	8	10	240	
8	S. S. "Shah Allum" ...	1st February 1909 ...	73	791	24	2	1	628	
9	S. S. "Firoozi" ...	1st do. ...	83	906	29	9	2	565	
10	S. S. "Shah Nasir" ...	6th do. ...	96	993	42	11 3 crew.	8	527 84 crew.	
11	S. S. "Rahmani" ...	7th do. ...	81	786	12	4	6	580	
12	S. S. "Hooseinee" ...	11th do. ...	65	479	...	...	1	405	
13	S. S. "Naderi" ...	6th March 1909 ...	71	527	2	...	...	...	
14	S. S. "Haidari" ...	8th do. ...	79	602	4	...	...	...	
15	S. S. "Xema" ...	9th do. ...	90	529	2	...	...	...	
16	S. S. "Islami" ...	12th do. ...	78	828	9	...	...	...	
17	S. S. "Budrie" ...	18th do. ...	79	859	4	...	...	...	
18	S. S. "Ahmadi" ...	18th do. ...	69	215	2	1	...	177	
19	S. S. "Shah Jahan" ...	30th do. ...	101	746	8	1	...	...	
20	S. S. "Alavi" ...	30th do. ...	77	695	7	1	2	...	1 crew reported to have been attacked with plague.
21	S. S. "Rehmani" ...	15th April 1909 ...	72	114	...	...	...	...	
22	S. S. "Majidi" ...	16th do. ...	71	57	...	...	...	...	
23	S. S. "Islami" ...	3rd May 1909 ...	71	133	...	...	...	...	
24	S. S. "Ahmadi" ...	4th do. ...	68	107	...	...	...	...	
		Total ...	1,801	14,320	279	60	39	3,813	

APPENDIX II-*b*.

ANNUAL REPORT BY THE HEALTH OFFICER OF THE PORT OF KARA'CHI FOR THE YEAR 1909.

Detention Camp, Grass Bandar, Karáchi
dated 5th January 1910.

Outgoing Vessels.

During the year 373 outward bound vessels were inspected by the Health Officer of the Port and were given Bills of Health as against 353 steam vessels during the preceding year. Of this number 211 were proceeding to Aden, Red Sea and Europe and 162 to other places out of India including Persian Gulf.

Bills of Health were also given after inspection to 239 country boats.

The Native crew and deck passengers of all vessels proceeding to ports out of India were medically inspected at the Detention Camp and their kit, excepting boots, was disinfected by steam. The boots when requiring disinfection were exposed to the action of Formaldehyd Gas.

Incoming Vessels.

21 steam vessels and 38 country boats were inspected for the existence of infectious diseases. The country boats include all those arriving from East African Ports.

Plague.

No cases occurred in the harbour or amongst the shipping, visiting this Port during the year.

Cholera.

No cases occurred in the harbour or amongst the shipping, visiting this Port during the year.

Small-Pox.

8 cases with 1 contact were removed to the Infectious Diseases Hospital from various incoming vessels.

Chicken-Pox.

One case was removed to the Infectious Diseases Hospital from incoming vessels.

Measles.

24 cases of measles amongst the British troops were removed to the Station Hospital from H. T. s. s. "Rewa" only on her arrival from Southampton.

Jigger.

No cases of this disease were detected during the year.

Sleeping Sickness.

No cases were detected.

Diseases other than the above-mentioned.

23 deaths occurred on board the vessels either on the voyage on in the harbour and 6 cases were removed to the Civil Hospital 5 suffering from high temperature and 1 suffering from entiritis.

Red Sea Pilgrims.

None passed through Karáchi during the year. But 817 pilgrims arrived here from Jeddah *vid* Aden amongst whom 4 deaths from old age and general debility had occured between Aden and this Port.

Emigrants.

During the year 83 artizans along with 25 dependants passed through the Camp en route to Mombasa *vid* Bombay for work on the Uganda Railway after 5 days segregation in this Camp.

Sanitary State of the Harbour.

The sanitary state of the harbour was fairly satisfactory.

The following is a tabular statement of the vessels, crew and passengers inspected during the year :—

	Vessels.			Crew and Passengers.		
	Steamers.	Country Boats.	Total.	Steamers.	Country Boats.	Total.
Incoming	21	38	59	10,938	417	11,355
Outgoing	373	239	612	56,400	2,993	59,393

Out of the total number of crews and passengers which were medically inspected as shown above 33,994 also had their kit disinfected.

332 saloon passengers for Europe obtained shore inspection passes here for direct transhipment to the P. & O. Steamers at Bombay.

During the latter part of the year the disinfection of crews and passengers of steamers coming from Bombay and proceeding to Persian Gulf *vid* Karáchi was carried out at Bombay instead of here, *vide* Government Resolution No. 1087-P., dated 11th August 1909, and the steamers remained in strict quarantine here and the coolies, before being allowed on board to work cargo, were disinfected and medically inspected at the Detention Camp. But about a month back this has been discontinued and the disinfection takes place here as per Government Resolution No. 1427-P., dated 29th November 1909.

The Clayton apparatus was put into use on four occasions during the year on the following steamers :—

1. S. S. H. T. " Rewa ".
2. S. S. I. G. T. S. " Patrick Stewart."
3. S. S. " Islami."
4. S. S. " Majidi."

On the first occasion when it was worked on the S. S. H. T. " Rewa " it was found quite useless for fumigation purpose. But on ascertaining the reason of it, it was found that the propellas had been clagged through the want of attention when the machine was in stock which were afterwards removed and thoroughly cleaned. On the three other occasions when it was worked on S. S. I. G. T. S. " Patrick Stewart," S. S. " Islami " and S. S. " Majidi " it worked very satisfactorily as almost all the rats on the ships were found dead and bucketsful of dead cockroaches were also found.

Camp.

Owing to the reclamation by the Karáchi Port Trust for remodelling the wharfs of the Port, the situation of the Camp has been such that it has got thousand and one ways of egress and ingress and the Karáchi Port Trust have nearly demolished half of the Camp of what it was before, and in connection with that scheme they intend to take some more of the Camp in a few months and run railway lines through the Camp. It is proposed to remove the camp shortly from its present position as the plans have been prepared by the Engineering Department and submitted to the proper authorities and if this could be hastened, it will be a great help to the disinfection and inspection of the Port of Karáchi.

Establishment.

Hospital Assistant Shaik Umer has been attached to this Camp for the whole year, and has given entire satisfaction in assisting the Port Health Officer in the duties of inspection of this Port.

The Disinfection Supervisor Metharam Pertabrai has rendered most valuable assistance and has carried on the duties of his post to my entire satisfaction.

The clerk Mahomed Jaffer Shaik Ibrahim has carried out his duties to my entire satisfaction.

A. H. MacGREGOR,
Assistant Surgeon, I. S. M. D.,
Acting Port Health Officer, Karáchi.

APPENDIX: II—C.

Annual Report of the Health Officer of the Port of Aden for the Year 1909.

I.—General Remarks.

Shipping :—One thousand four hundred and two steamers and square rigged vessels were granted Bills of Health during the year.

Of the above number, 831 under the British Flag and 571 under Foreign Flags.

Bills of Health issued to vessels from infected ports were annotated according to the circumstances of each case.

1,167 Bills of Health were issued to buggalows during the year.

The accompanying table A gives a list of vessels on board of which infectious diseases existed on arrival.

In the case of these vessels all possible sanitary precautions were taken on arrival at Aden to prevent the spread of disease.

Vessels and Native craft arriving from Berbera, the Somali coast and from East Africa were personally inspected and certified free from small-pox, jigger and sleeping sickness.

Small-pox cases landed from ships,		30.
Chicken-pox	do.	3.
Measles	do.	1.
Sleeping sickness	do.	1.

II.—Pilgrim Traffic.

47 Pilgrim ships carrying pilgrims passed through this port during the year; all were medically inspected, but not granted pratique:—

Year.	Number of ships.	Number of pilgrims.	Number of deaths.	Cases of infectious disease on board.				Number of vessels infected.
				Cholera.	Plague.	Measles.	Small-pox.	
1909	47	35,720	112	...	...	...	24	10

III.—Table A.

List of vessels on board of which infectious diseases existed on arrival at Aden;—

No. of ships.	No. of cases landed.	No. of cases died.	No. of cases recovered.	Average of cases per ship.	Average stay in hospital of each patient.		Remarks.
					Fatal.	Non-fatal.	
					6·4	37·1	
21	36	10	26	1·7	11·9		

Date and Month.	Names of Vessels.	From	To	No. of cases.	Whether pilgrim or otherwise.	Remarks.
6th January 1909	S.S. "Guild Hall"	Bussorah	London	1	No ...	Small-pox.
17th „ ...	„ "Islami" ...	Jeddah	Bombay	1	Yes ...	„
18th „ ...	„ "Ahmedi" ...	„ ...	„ ...	2	„ ...	„
23rd „ ...	„ "Firoosi" ...	„ ...	„ ...	2	„ ...	„
28th „ ...	„ "Majidi" ...	„ ...	„ ...	6	„ ...	„
28th „ ...	„ "Ipswick" ...	„ ...	„ ...	3	„ ...	„
28th „ ...	„ "Rehmani" ...	„ ...	„ ...	6	„ ...	„
1st February 1909.	„ "Hooseini" ...	„ ...	„ ...	1	„ ...	„
3rd March 1909 ...	„ "Nubia" ...	London	Yokoh a-ma.	1	No ...	„
7th „ ...	„ "Priez Regent." ...	Durban	Hamburg	1	„ ...	Sea sickness.
22nd „ ...	„ "Alavi" ...	Jeddah	Bombay.	1	Yes ...	Small-pox.
28th „ ...	„ "India" ...	London.	Sydney	1	No ...	Chicken-pox.
16th April 1909 ...	„ "Golconda".	Calcutta.	London.	2	„ ...	„
18th „ ...	„ "Meanatchy"	Zanzibar.	Zanzibar.	1	„ ...	Small-pox.
25th „ ...	„ "Rehmani".	Bombay.	Jeddah	2	„ ...	„
11th October 1909.	„ "S. Firoozi"	„ ...	„ ...	1	Yes ...	„
23rd November 1909.	„ "Malwa" ...	Aden ...	Bombay.	1	No ...	Measles.
27th „ ...	„ "Firoozi" ...	Bombay.	Jeddah	1	Yes ...	Small-pox.
5th December 1909.	„ "Salsette"...	Aden ...	Bombay.	1	No ...	„

Note.—Thirty-five cases of infectious diseases were found in the abovementioned ships at Aden, *viz*,.—30 Small-pox, 3 Chicken-pox, 1 Sleeping sickness, and 1 Measles.

IV.—The following are the names and other information regarding Pilgrim ships which passed through Aden during the year :—

No.	Date and month.	Names of Vessels.	Nationality.	From	To	Declared Number of Pilgrims.	No. of cases of infectious diseases.	No. of deaths.
1	16th January 1909.	S. S. "Ahmedi"...	British .	Jeddah .	Bombay	729	...	5
2	17th January 1909.	„ "Islami" ...	„ ...	„ ...	Karáchi .	822	1	4
3	17th January 1909.	„ "Xema" ...	„ ...	„ ...	Bombay .	600	...	4
4	18th January 1909.	„ "Shah Allum".	„ ...	„ ...	„ ...	821	...	5
5	18th January 1909.	„ "Mohamedi".	„ ...	„ ...	„ ...	702	2	6
6	20th January 1909.	„ "Majidi" ...	„ ...	„ ...	„ ...	797	6	6
7	20th January 1909.	„ "Ipswick"...	„ ...	„ ...	„ ...	448	3	3
8	23rd January 1909.	„ "Firoozi" ...	„ ...	„ ...	„ ...	930	2	7
9	23rd January 1909.	„ "Mozafari"...	„ ...	„ ...	Persian Gulf.	870	...	...
10	28th January 1909.	„ "Rehmani"...	„ ...	„ ...	Bombay.	805	6	3
11	1st February 1909	„ "Hooseini"...	„ ...	„ ...	„ ...	447	1	...
12	24th February 1909.	„ "Naderi" ...	„ ...	„ ...	„ ...	564	...	2
13	27th February 1909.	„ "Hadari" ...	„ ...	„ ...	„ ...	609	...	3
14	27th February 1909.	„ "Saifi" ...	„ ...	„ ...	„ ...	617	...	...
15	2nd March 1909.	„ "Islami" ...	„ ...	„ ...	„ ...	830	...	6
16	4th February 1909.	„ "Budrie" ...	„ ...	„ ...	„ ...	845	...	...
17	6th March 1909.	„ "Ahmedi" ...	„ ...	„ ...	„ ...	587	...	1
18	17th March 1909.	„ "Mustari" ...	„ ...	„ ...	„ ...	57	...	...
19	21st March 1909.	„ "Shah Jahan".	„ ...	„ ...	„ ...	711	...	1
20	22nd March 1909.	„ "Alavi" ...	„ ...	„ ...	„ ...	690	1	3
21	25th August 1909.	„ "Turnate" ...	Dutch...	Bombay.	Jeddah .	823	...	2
22	6th September 1909.	„ "Rehmani"...	British .	„ ...	„ ...	790	...	4
23	16th September 1909.	„ "Kedvie" ...	Dutch...	„ ...	„ ...	407	...	1
24	17th September 1909.	„ "Markgraf" .	German.	„ ...	„ ...	984	...	5
25	20th September 1909.	„ "Islami" ...	British .	„ ...	„ ...	824	...	1
26	30th September 1909.	„ "Hooseini"...	„ ...	„ ...	„ ...	448	...	3
27	4th October 1909.	„ "Majidi" ...	„ ...	„ ...	„ ...	729	...	2
28	7th October 1909.	„ "Budrie" ..	„ ...	„ ...	„ ...	870	...	...
29	11th October 1909.	„ "Firoozi" ...	„ ...	„ ...	„ ...	925	1	1
30	19th October 1909.	„ "Alavi" ...	„ ...	„ ...	„ ...	845	...	1
31	24th October 1909.	„ "Rehmani" .	„ ...	„ ...	„ ...	794	...	...

No.	Date and month.	Name of Vessels.	Nationality.	From	To	Declared number of Pilgrims.	No. of cases of infectious diseases.	No. of deaths.
32	27th October 1909.	S. S. "Markgraf"	German	Bombay.	Jeddah	979	...	...
33	3rd November 1909.	„ "Islami" ...	British	„ ...	„ ...	823	...	1
34	7th November 1909.	„ "Haidari" ..	„ ...	„ ...	„ ...	589	...	...
35	12th November 1909.	„ "Shah Akber".	„ ...	„ ...	„ ...	750	...	1
36	18th November 1909.	„ "Majidi" ...	„ ...	„ ...	„ ...	798	...	5
37	18th November 1909.	„ "Siberian"...	„ ...	„ ...	„ ...	679	...	...
38	25th November 1909.	„ "Fakiri" ...	„ ...	„ ...	„ ...	984	...	4
39	27th November 1909.	„ "Firoozi" ...	„ ...	„ ...	„ ...	922	1	2
40	29th November 1909.	„ "City of Vienna."...	„ ...	„ ...	„ ...	1,051	...	2
41	29th November 1909.	„ "Alavi" ...	„ ...	„ ...	„ ...	842	...	3
42	1st December 1909.	„ "Rehmani"...	„ ...	„ ...	„ ...	791	...	4
43	1st December 1909.	„ "Markgraf"	German	„ ...	„ ...	988	...	2
44	3rd December 1909.	„ "Shah Jahan".	British	„ ...	„ ...	1,410	...	2
45	5th December 1909.	„ "Budrie" ...	„ ...	„ ...	„ ...	562	...	4
46	6th December 1909.	„ "Saifi" ...	„ ...	„ ...	„ ...	618	...	1
47	7th December 1909.	„ "Nagmi" ...	„ ...	„ ...	„ ...	957	...	2

V.—Prevailing Diseases.

Dysentery, malarial fever, diseases of respiratory system, ulcers, digestive system and small-pox.

Small-pox existed in epidemic form and was of a very virulent type, owing to the people who were attacked not being vaccinated.

Vaccination was offered to all arrivals as an alternative to quarantine, and residents of Aden, who had not been vaccinated, were persuaded to undergo the operation.

VI.—Table showing the number of cases treated at the Small-pox Hospital, Maala, during the year:—

Year.	Remaining per last return.	Admissions.	Deaths.	Protected.	Unprotected.	Remarks.
1909	7	61	13	24	37	...

Source of Admissions.						Europeans.	Remarks.
Shipping.	St Point.	Maala.	Crater.	Sheik Othman.	Interior.		
36	4	13	5	0	3	2	...

VII.—Statement showing the tubes received, their cost and the vaccination operations performed during the year :—

Number of tubes received.		Cost.		Remarks.
English.	Bombay.	Lanoline.	Glycerinated Vaccine.	
Nil.	4,600	*Nil.*	Rs. a. p. 1,150 0 0	

Total number of operations performed.	Result.			Remarks.
	Successful.	Failed.	Unknown.	
18,548	7,244	2,347	8,957	

NOTE.—These are the vaccinations performed during the year, and which have proved remarkably beneficial.

VIII.—ESTABLISHMENT.

Major W. S. P. Ricketts, I. M. S., from 1st January 1909 to 16th March 1909.
Lieut.-Colonel S. E. Prall, I. M. S., from 17th March 1909 to 31st December 1909.

IX.—OFFICE ESTABLISHMENT.

Mr. H. A. Poyntz, Clerk, 1st January 1909 to 10th November 1909.
Mr. A. E. Almeida, Clerk, 11th November 1909 to 31st December 1909.
Abdur Rehman, Peon, 1st January 1909 to 31st May 1909.
Luxsiman Khrisna, Peon, 1st June 1909 to 31st December 1909.

X.—LAUNCH ESTABLISHMENT.

1. Driver, Awad Saeed, 1st January 1909 to 31st December 1909.
2. Succani, Ahmed Suleman do. do.
3. Stroker, Hussein Nooman do. do.
4. Lascar, Mahommad Magon do. do.

S. E. PRALL,
Lieut.-Colonel, I. M. S.,
Port Surgeon, Aden.

APPENDIX III.

The following table shows for the towns mentioned when the drainage and water-works were completed and the average annual death-rate for the five-year period preceding the introduction, and also the ratio for the five-year period ending with the year under report, exclusive of recorded plague mortality.

The rural death-rates for each district are added for comparison :—

Name of District.	Táluka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1909 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in Rural circles for the year 1909.	Plague mortality in Rural circles, 1909.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay ...	*a* 1879	*b* 1892	39·25	Not available.	...	...
West Khándesh ...	Dhulia ...	Dhulia ...	...	1896	25·10	32·50	33·30	...
Ahmednagar ...	Ahmednagar ...	Ahmednagar ...	...	1897	36·89	55·65	21·08	·29
Surat ...	Olpád ...	Surat ...	...	1898	24·13	39·77	25·70	·00
Ahmedabad ...	Daskroi ...	Ahmedabad ...	*c* 1893	1891	53·66	45·21	31·55	·40
Karáchi ...	Karáchi ...	Karáchi ...	*c* 1895	1894	31·52	35·15	8·45	2·09
Sukkur ...	Sukkur ...	Sukkur ...	...	1895	34·29	28·70	24·63	...
Thána ...	Sálsette ...	Bándra ...	...	1896	26·00	23·01	31·19	2·46
Kolába ...	Panvel ...	Panvel ...	...	1895	22·67	19·50	32·37	·91
Dhárwár ...	Hubli ...	Hubli ...	...	1894	28·43	25·70	28·96	·48
Ahmedabad ...	Viramgám ...	Viramgám ...	*d* 1893	...	40·84	69·28	28·85	·06
East Khándesh ...	Jalgaon ...	Jalgaon ...	...	1909	28·60	31·56	32·15	·04

a Drainage works commenced in 1879 still in progress.

b Tánsa water works completed in 1892. Besides this there are Vehár and Tulsi Water Works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1909.*

1	2	3			4			5			6	7	8	9		
No.	Districts.	Population according to Census of 1901.			Number of Births registered.			Ratio of Births per 1,000 of Population.			Number of Males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	Mean ratio of Births per 1,000 during previous five years.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	East Khándesh	484,480	472,671	957,151	23,658	22,176	45,834	24·72	23·16	47·88	106·68	15·92	..	17·01	16·12	33·13
2	West Khándesh ...	237,085	232,569	469,654	13,000	12,532	25,532	27·67	26·69	54·36	103·73	23·05	..	27·63	26·64	54·27
3	Násik	412,647	402,702	815,349	19,391	18,441	37,832	23·78	22·61	46·39	105·15	12·45	..	24·83	23·24	46·07
4	Thána	421,931	389,901	810,832	15,502	15,010	30,512	19·12	18·51	37·63	103·28	9·80	..	17·72	16·89	34·61
5	Kolába	304,412	301,095	605,507	12,112	11,463	23,575	20·00	18·93	38·93	105·66	12·42	..	16·90	15·99	32·89
6	City of Bombay ..	600,599*	358,938*	959,537*	9,888	9,675	19,563	10·30	10·08	20·39	102·20	...	15·56	12·18	11·38	23·56
	Central Registration District.															
7	Ahmednagar	417,038	419,779	836,817	19,398	18,533	37,931	23·18	22·15	45·33	104·67	20·53	..	22·53	21·36	43·89
8	Poona	498,248	490,854	989,102	18,384	16,890	35,274	18·59	17·08	35·67	108·85	13·36	..	18·15	16·90	35·05
9	Sholápur	362,569	358,018	720,587	14,918	14,186	29,104	20·70	19·68	40·38	105·12	13·98	..	19·03	18·00	37·03
10	Sátára	568,764	577,266	1,146,030	19,276	18,180	37,456	16·82	15·86	32·68	106·03	6·15	..	16·97	15·80	32·77
11	Ratnágiri	547,499	620,376	1,167,875	21,270	19,880	41,150	18·21	17·02	35·23	106·99	14·97	..	15·08	14·47	29·55
	Southern Registration District.															
12	Belgaum	501,087	491,175	992,262	18,046	17,593	35,639	18·19	17·73	35·92	102·57	5·43	..	17·23	16·54	33·77
13	Dhárwár	560,567	552,045	1,112,612	19,647	19,210	38,857	17·66	17·26	34·92	102·27	8·63	..	16·44	15·76	32·21
14	Bijápur	367,997	367,403	735,400	15,739	14,958	30,697	21·41	20·33	41·74	105·23	12·51	..	20·44	19·74	40·18
15	Kánara	236,003	218,414	454,417	7,384	6,902	14,286	16·24	15·19	31·44	106·98	2·89	..	15·57	14·94	30·51
	Gujarát Registration District.															
16	Surat	317,709	319,173	636,882	12,483	11,789	24,272	19·60	18·51	38·11	105·89	12·25	..	18·84	17·82	36·66
17	Broach	148,504	143,225	291,729	7,213	6,889	14,102	24·72	23·61	48·33	104·70	15·29	..	23·15	22·10	45·25
18	Kaira	375,599	340,654	716,253	16,229	14,416	30,645	22·66	20·13	42·79	112·58	11·28	..	20·59	18·62	39·21
19	Panch Mahals ..	132,035	128,968	261,003	6,418	6,142	12,560	24·59	23·53	48·13	104·49	27·66	..	23·42	22·56	45·98
20	Ahmedábad	407,626	387,718	795,344	15,689	13,910	29,599	19·73	17·49	37·22	112·79	1·54	..	17·61	15·90	33·51
	Sind Registration District.															
21	Karáchi	246,241	196,509	442,750	6,106	5,149	11,255	13·79	11·63	25·42	118·59	4·87	..	13·14	11·51	24·65
22	Hyderabad	543,951	444,524	988,475	8,505	5,973	14,478	8·60	6·04	14·65	142·39	...	1·31	9·89	7·21	17·10
23	Thar and Párkar ..	202,707	161,162	363,869	4,330	3,238	7,568	11·90	8·90	20·80	133·72	4·23	..	11·34	8·62	19·96
24	Lárkhána	354,103	301,980	656,083	7,529	5,865	13,394	11·48	8·94	20·42	128·82	..	3·67	12·16	9·62	21·78
25	Sukkur	281,592	241,327	522,919	6,913	5,468	12,381	13·22	10·45	23·67	126·44	·13	..	13·48	11·01	24·49
26	Upper Sind Frontier..	129,838	102,147	231,985	2,426	1,763	4,189	10·46	7·60	1·06	137·61	3·21	..	10·54	7·87	18·41
	Total for the Presidency ..	9,529,472	8,951,890	18,481,362	341,454	316,231	657,685	18·48	17·11	35·59	107·98	8·21	..	17·72	16·43	34·15

* Population according to the Census of 1906.

ANNUAL FORM NO. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1909.*

1	2	3	4	5			6		7			8
Serial Number.	Districts.	Area in square miles.	Average population per square mile.	Population (Census 1901).			Births.		Number of Deaths registered.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	East Khándesh	4,545	211·	434,480	472,671	957,151	45,834	47·88	15,820	14,775	30,595	107·07
2	West Khándesh	5,496	85·	237,085	232,569	469,654	25,532	54·35	7,605	7,098	14,703	107·14
3	Násik	5,850	139·	412,647	402,702	815,349	37,832	46·39	14,397	13,286	27,683	108·37
4	Thána	3,573	227·	421,931	388,901	810,832	30,512	37·63	11,717	10,843	22,565	108·01
5	Kolába	2,131	284·	304,412	301,095	605,507	23,575	38·93	8,209	7,848	16,057	104·60
6	City of Bombay	22	4,3615·	*600,599	358,938	959,537*	19,563	20·39	19,609	14,885	34,494	131·74
	Central Registration District.											
7	Ahmednagar...	6,586	127·	417,038	419,779	836,817	37,931	45·33	10,859	9,891	20,750	109·78
8	Poona	5,349	185·	498,243	490,854	989,102	35,274	35·67	13,989	13,175	27,164	106·18
9	Sholápur	4,541	159·	362,569	358,018	720,587	29,104	40·38	9,922	9,107	19,029	108·95
10	Sátára	4,825	238·	568,764	577,266	1,146,030	37,456	32·68	15,458	14,954	30,412	103·37
11	Ratnágiri	3,998	292·	547,499	620,376	1,167,875	41,150	35·23	11,976	11,694	23,670	102·33
	Southern Registration District.											
12	Belgaum	4,669	213·	501,087	491,175	992,262	35,639	35·92	15,499	14,750	30,249	105·08
13	Dhárwár	4,602	242·	560,567	552,045	1,112,612	38,857	34·92	14,921	14,333	29,254	104·10
14	Bijápur	5,669	129·	367,997	367,403	735,400	30,697	41·74	10,985	10,509	21,494	104·53
15	Kánara	3,945	115·	236,003	218,414	454,417	14,286	31·44	6,739	6,235	12,974	108·08
	Gujarát Registration District.											
16	Surat	1,653	385·	317,709	319,173	636,882	24,272	38·11	8,364	8,104	16,468	103·21
17	Broach	1,467	199·	148,504	143,225	291,729	14,102	48·33	4,863	4,777	9,640	101·80
18	Kaira	1,595	449·	375,599	340,654	716,253	30,645	42·79	11,673	10,893	22,566	107·16
19	Panch Mahális	1,606	162·	132,035	128,968	261,003	12,560	48·12	2,710	2,630	5,340	103·04
20	Ahmedabad	3,816	208·	407,626	387,718	795,344	29,599	37·22	14,586	13,794	28,380	105·74
	Sind Registration District.											
21	Karáchi	11,971	37·	246,241	196,509	442,750	11,255	25·42	5,015	4,083	9,097	122·86
22	Hyderabad	8,291	119·	543,951	444,524	988,475	14,478	14·65	8,938	6,830	15,768	130·86
23	Thar and Párkar	13,690	27·	202,707	161,162	363,869	7,568	20·80	3,471	2,557	6,028	135·57
24	Lárkhána	4,762	138·	354,103	301,980	656,083	13,394	20·42	8,506	7,295	15,801	116·60
25	Sukkur	5,731	91·	281,592	241,327	522,919	12,381	23·67	6,638	5,673	12,311	117·01
26	Upper Sind Frontier ...	2,621	81·	129,838	102,147	231,985	4,189	18·06	1,909	1,535	3,444	124·36
	Total for the Presidency...	122,984	150·	9,529,472	8,951,890	18,481,362	657,685	35·59	264,378	241,558	505,936	109·45

1	2	9										10		
Serial Number.	Districts.	Deaths per 1,000 of Population from							All causes.			Mean Ratio of Deaths per 1,000 during previous five years.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.														
1	East Kándesh	1·29	1·06	·95	11·38	1·98	3·20	·24	11·85	32·63	31·26	31·96	25·65	24·45	25·30
2	West Khándesh	·64	·80	...	15·62	·80	2·20	·27	10·97	32·07	30·52	31·30	38·89	37·66	38·26
3	Násik	3·32	·67	·06	12·07	1·62	3·23	·32	12·64	34·89	32·99	33·95	30·35	27·95	29·17
4	Thána	·99	·46	·82	16·60	·92	·84	·55	6·65	27·71	27·90	27·83	31·60	31·16	31·38
5	Kolába	1·72	·46	·72	14·12	1·21	·67	·33	7·28	26·96	26·06	26·51	33·91	32·31	33·11
6	City of Bombay	·76	·49	5·40	2·55	2·65	10·32	·71	12·75	32·65	41·47	35·95	48·65	60·81	52·87
	Central Registration District.														
7	Ahmednagar	·79	·17	·05	8·92	4·03	3·21	·25	7·31	26·04	23·56	24·79	36·45	34·17	35·31
8	Poona	2·26	·52	1·85	10·18	3·13	3·87	·32	5·33	28·08	26·84	27·46	39·39	37·08	39·24
9	Sholápur	2·04	·08	·21	10·67	5·67	1·97	·39	5·37	27·37	25·43	26·40	35·41	33·52	34·97
10	Sátára	2·46	·10	4·58	8·98	3·96	·81	·35	5·30	27·18	25·89	26·54	39·24	38·38	38·81
11	Ratnágiri	·12	·30	·19	12·29	1·94	1·68	·43	3·31	21·88	18·85	20·26	24·04	21·00	22·43
	Southern Registration District.														
12	Belgaum	5·12	·02	3·38	4·57	3·14	2·19	·39	11·66	30·93	30·03	30·48	34·87	34·55	34·71
13	Dhárwár	3·25	...	1·26	6·41	1·06	2·01	·33	11·96	26·62	25·96	26·29	30·69	30·34	30·52
14	Bijápur	3·18	·04	1·50	9·12	2·75	2·46	·27	9·90	29·85	28·60	29·23	3·93	36·92	37·42
15	Kánara	·85	·02	·17	12·16	2·27	·82	·42	11·84	28·55	28·55	28·55	32·08	31·34	31·72
	Gujarát Registration District.														
16	Surat	1·04	·02	·57	13·33	·39	6·98	·31	3·22	26·33	25·39	25·86	34·32	33·64	33·98
17	Broach	·34	...	·12	20·64	·48	5·69	·40	5·37	32·75	33·35	33·04	37·29	39·10	38·18
18	Kaira	·67	·01	1·11	11·77	1·44	8·91	·49	7·11	31·08	31·98	31·51	40·90	45·82	43·24
19	Panch Mahális	...	·01	...	16·66	·26	·61	·46	2·46	20·52	20·39	20·46	25·03	25·96	25·49
20	Ahmedabad	·53	·75	·57	23·58	·54	5·60	·43	3·68	35·78	35·58	35·68	41·08	42·18	41·62
	Sind Registration District.														
21	Karáchi	·37	·05	4·51	8·70	·29	1·07	·48	5·08	20·37	20·78	20·55	25·25	26·00	25·59
22	Hyderabad	·43	·05	·01	13·59	·43	·55	·31	·58	16·43	15·36	15·95	17·89	18·28	18·07
23	Thar and Párkar	...	...	...	15·76	·05	·10	·40	·56	17·12	15·87	16·57	21·05	23·39	20·99
24	Lárkhána	·76	·02	...	22·11	·10	·02	·34	·72	24·02	24·16	24·08	21·78	22·63	22·17
25	Sukkur	·58	...	...	20·14	·18	·22	·26	2·16	23·57	23·51	23·54	25·97	27·97	26·89
26	Upper Sind Frontier ...	·34	·04	...	13·82	·02	...	·23	·39	14·70	15·03	14·85	16·85	19·08	17·83
	Total for the Presidency...	1·55	·27	1·32	12·11	1·90	2·89	·38	6·95	27·74	26·98	27·38	33·76	33·56	33·65

* Population according to the Census of 1906.

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the months of the year 1909.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	East Khándesh	2,088	2,045	2,323	2,367	2,515	1,907	2,841	3,815	3,299	2,783	2,420	2,192	30,595	1
2	West Khándesh	1,240	1,140	1,280	1,031	1,198	817	1,134	1,744	1,251	1,211	1,402	1,255	14,703	2
3	Násik	1,851	1,607	1,835	3,833	2,354	2,417	2,652	2,792	2,224	1,939	2,020	2,089	27,683	3
4	Thána	2,346	1,939	2,167	2,342	1,756	1,473	1,495	1,937	1,502	1,575	1,954	2,079	22,565	4
5	Kolába	1,618	1,533	1,361	1,970	1,363	965	1,137	1,218	1,161	1,111	1,190	1,410	16,057	5
6	City of Bombay	2,669	2,884	4,415	4,576	3,350	2,115	2,270	2,579	2,472	2,344	2,384	2,436	34,494	6
	Central Registration District.														
7	Ahmednagar	1,236	1,221	1,403	1,604	1,940	1,966	2,487	2,284	1,949	1,706	1,539	1,415	20,750	7
8	Poona	1,941	1,747	1,718	2,732	2,542	1,870	2,574	2,879	2,714	2,358	2,124	1,965	27,164	8
9	Sholápur	1,168	966	1,011	1,933	1,738	1,280	2,022	2,108	2,103	1,862	1,472	1,367	19,029	9
10	Sátára	1,891	1,487	1,860	1,939	1,977	3,092	3,226	3,074	3,104	3,388	3,137	2,537	30,412	10
11	Ratnágiri	2,180	2,237	2,067	1,840	1,827	1,761	2,156	1,919	1,808	1,833	1,868	2,174	23,670	11
	Southern Registration District.														
12	Belgaum	1,927	2,200	2,600	4,262	4,113	2,865	2,037	1,932	2,142	2,227	2,093	1,801	30,249	12
13	Dhárwar	2,168	2,231	2,118	1,856	2,218	3,001	4,036	2,675	2,276	2,167	2,274	2,236	29,254	13
14	Bijápur	1,210	1,071	1,336	1,587	2,276	1,857	1,893	1,948	2,362	2,520	1,928	1,506	21,494	14
15	Kánara	1,237	1,377	1,235	918	787	882	1,050	1,176	1,040	1,017	1,105	1,150	12,974	15
	Gujardt Registration District.														
16	Surat	1,316	1,256	1,476	1,484	1,588	1,077	1,272	1,340	1,314	1,346	1,540	1,459	16,468	16
17	Broach	871	649	745	715	742	686	740	959	824	921	948	840	9,640	17
18	Kaira	1,545	1,521	1,998	1,898	1,909	1,704	2,087	2,429	2,125	1,994	2,735	1,621	22,566	18
19	Panch Mahás	472	396	470	380	411	336	406	446	496	538	534	455	5,340	19
20	Ahmedabad...	2,321	2,287	2,775	2,555	2,215	1,755	2,167	2,992	2,382	2,327	2,338	2,266	28,380	20
	Sind Registration District.														
21	Karáchi	813	792	931	947	864	715	703	604	565	596	681	839	9,097	21
22	Hyderabad	2,006	1,762	1,789	1,309	1,196	1,220	1,103	907	845	1,075	1,223	1,393	15,768	22
23	Thar and Párkar	813	821	895	627	444	334	305	269	285	266	370	574	6,028	23
24	Lárkhána	1,664	1,405	1,549	1,217	1,309	1,668	1,421	999	951	1,140	1,265	1,213	15,801	24
25	Sukkur	1,624	1,048	1,099	933	1,117	1,007	856	643	735	953	1,198	1,098	12,311	25
26	Upper Sind Frontier ...	416	318	227	243	247	276	239	227	179	321	360	321	3,444	26
	Total for the Presidency.	40,336	37,900	42,801	47,068	43,993	39,166	44,309	45,945	42,107	41,518	41,102	39,691	505,936	
	Ratio of deaths per 1,000 in each month... ...	2·18	2·05	2·32	2·55	2·38	2·12	2·40	2·49	2·28	2·25	2·22	2·15	27·38	

FORE No. IV.

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	East Khándesh	4,850	4,138	3994	4,162	871	774	348	380
2	West Khándesh	2,614	2,293	1,938	1,961	361	370	192	185
3	Násik	4,261	3,340	3,250	3,304	887	803	408	376
4	Thána	2,758	2,329	1,716	1,816	611	624	405	370
5	Kolába	2,068	1,787	988	1,171	408	426	254	258
6	City of Bombay	4,182	3,762	1,416	1,525	558	646	843	724
	Central Registration District.								
7	Ahmednagar	3,708	3,023	2,325	2,155	446	420	219	213
8	Poona	3,466	2,792	2,739	2,506	719	734	545	554
9	Sholápur	3,170	2,382	1,587	1,498	490	463	396	332
10	Sátára	3,005	2,458	2,515	2,469	1,039	1,093	760	756
11	Ratnágiri	2,130	1,792	1,414	1,429	467	566	285	317
	Southern Registration District.								
12	Belgaum	2,556	2,124	2,427	2,544	1,321	1,242	948	861
13	Dhárwár	3,287	2,576	2,239	2,379	931	849	711	665
14	Bijápur	2,221	1,689	2,058	2,230	741	670	449	394
15	Kánara	1,542	1,351	528	563	231	233	144	163
	Gujarát Registration District.								
16	Surat	2,158	1,834	1,529	1,550	428	435	255	292
17	Broach	1,717	1,584	1,105	1,183	175	184	87	82
18	Kaira	2,988	3,067	2,944	2,586	386	321	290	261
19	Panch Maháls	831	804	518	555	156	111	66	76
20	Ahmedabad	4,300	3,894	2,821	2,729	439	408	335	334
	Sind Registration District.								
21	Karáchi	1,303	1,199	611	587	206	211	195	177
22	Hyderabad	1,404	1,183	780	663	386	361	339	228
23	Thar and Párkar	495	413	193	157	142	87	131	91
24	Lárkhána	1,259	1,157	922	1,004	762	618	417	291
25	Sukkur	1,414	1,284	776	702	322	289	200	149
26	Upper Sind Frontier ...	371	360	208	176	128	103	74	59
	Total for the Presidency ...	64,058	54,615	43,541	43,554	13,611	13,041	9,318	8,588
	Population according to Census of 1901	207,605	202,164	921,002	940,545	1,344,614	1,286,495	1,235,171	1,001,501
	Ratios per 1,000 living ...	308·56	270·15	47·28	46·30	10·12	10·14	7·54	8·58

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1909.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
297	353	725	970	1,027	926	930	615	972	640	1,806	1,817	1
147	162	355	433	466	410	432	270	407	261	693	753	2
317	425	854	1,073	1,071	999	982	712	855	713	1,512	1,541	3
357	441	1,051	1,285	1,197	1,131	1,268	745	1,018	723	1,336	1,384	4
271	330	700	921	880	752	742	501	775	566	1,123	1,136	5
1,585	1,230	3,812	2,446	2,623	1,363	1,721	902	1,427	875	1,442	1,412	6
187	296	562	736	660	554	613	472	770	600	1,369	1,422	7
432	603	1,042	1,253	1,155	1,065	1,059	821	904	764	1,928	2,083	8
427	515	647	707	699	711	663	622	688	700	1,155	1,177	9
590	791	1,382	1,598	1,460	1,268	1,316	1,004	1,237	1,147	2,154	2,370	10
389	384	1,070	1,236	990	1,045	1,080	841	1,295	967	2,856	3,117	11
606	564	1,283	1,501	1,412	1,372	1,475	1,165	1,346	1,017	2,125	2,360	12
433	488	1,158	1,546	1,340	13,55	1,485	1,110	1,324	1,114	2,013	2,251	13
292	322	738	935	854	778	924	753	953	796	1,755	1,942	14
177	245	657	863	889	703	828	568	825	616	896	930	15
218	281	609	831	625	659	691	544	629	438	1,222	1,240	16
87	85	250	360	325	330	326	250	331	243	460	526	17
351	254	915	928	1,019	992	977	721	777	625	1,026	1,138	18
58	77	185	223	213	200	235	163	201	160	247	261	19
586	513	1,500	1,400	1,358	1,277	1,244	1,058	1,079	1,020	924	1,161	20
230	208	660	550	581	411	476	251	288	151	455	336	21
439	439	1,100	1,108	1,236	854	1,268	688	860	473	1,126	833	22
186	113	496	458	481	391	533	305	379	223	435	319	23
398	363	1,013	1,087	1,069	912	971	609	696	423	999	831	24
227	296	644	721	794	687	810	489	561	339	889	717	25
91	68	196	204	185	177	225	128	144	82	287	178	26
9,378	9,846	23,604	25,373	24,609	21,322	23,274	16,307	20,741	15,676	32,244	33,236	
779,647	696,954	1,657,754	1,614,771	1,485,004	1,326,932	970,540	904,730	570,008	543,887	381,534	444,739	
12·03	14·13	14·24	15·71	16·50	16·07	23·90	18·02	36·39	28·82	84·51	74·73	

ANNUAL FORM No. V.—DEATHS *registered according to* CLASSES

1	2	3						
		POPULATION ACCORDING TO CENSUS OF 1901.						
No.	Districts.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	East Khándesh	92,565	853,768	9,101	490	407	820	957,151
2	West Khándesh	26,614	428,341	3,197	331	255	10,916	469,654
3	Násik	43,856	761,471	7,643	1,780	467	132	815,349
4	Thána	36,257	724,418	2,484	42,106	5,238	329	810,832
5	Kolába	29,339	570,661	1,706	1,202	311	2,288	605,507
6	City of Bombay	*155,747	*508,608	*14,248	*29,645	*46,231	*5,996	*760,475
	Central Registration District.							
7	Ahmednagar	43,761	756,527	16,254	19,986	202	87	836,817
8	Poona	45,790	920,885	10,703	8,256	2,342	1,126	989,102
9	Sholápur	54,510	655,691	8,453	1,555	360	18	720,587
10	Sátára	40,888	1,085,398	18,483	975	230	56	1,146,030
11	Ratnágiri	82,825	1,077,745	2,328	4,929	29	19	1,167,875
	Southern Registration District.							
12	Belgaum	78,389	856,560	51,836	5,366	106	5	992,262
13	Dhárwár	141,528	954,431	12,336	4,046	153	118	1,112,612
14	Bijápur	84,416	646,768	3,321	866	29	...	735,400
15	Kánara	29,302	407,420	1,542	16,126	16	11	454,417
	Gujarát Registration District.							
16	Surat	54,191	551,027	11,785	957	12,516	6,406	636,882
17	Broach	63,408	195,922	3,254	685	3,127	25,333	291,729
18	Kaira	68,187	614,146	8,469	25,131	209	111	716,253
19	Panch Mahals	21,349	210,521	1,676	489	130	26,838	261,003
20	Ahmedabad	87,183	665,762	37,790	2,827	1,323	459	795,344
	Sind Registration District.							
21	Karáchi	344,516	93,083	126	2,650	1,841	534	442,750
22	Hyderabad	744,632	242,692	119	192	89	751	988,475
23	Thar and Párkar	211,309	151,726	657	5	4	168	363,869
24	Lárkhána	557,651	97,687	...	115	2	628	656,083
25	Sukkur	379,189	143,299	...	24	64	343	522,919
26	Upper Sind Frontier	209,192	22,765	19	2	...	7	231,985
	Total of the Presidency ...	3,726,594	14,197,322	227,530	170,736	75,681	83,499	18,481,362

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

* Population according to the Census of 1901.

in the BOMBAY PRESIDENCY *during the year 1909.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
2,775	27,771	18	18	9	4	30,595	29·98	32·52	1·97	36·93	22·11	4·87	31·96
551	14,136	16	...	...	...	14,703	20·70	33·00	5·00	...	...	...	31·30
1,171	26,447	37	21	6	1	27,683	26·70	34·73	4·84	11·80	12·84	7·57	33·95
1,144	20,258	22	1,068	68	5	22,565	31·55	27·98	8·86	25·36	12·98	15·20	27·80
663	15,313	13	27	1	40	16,057	22·59	26·83	7·62	22·13	3·21	17·48	26·51
8,330	22,139	1,172	1,416	1,209	228	34,494	53·48	43·53	82·25	47·77	26·15	38·03	45·36
1,104	19,354	33	47	3	209	20,750	25·23	25·59	2·03	2·35	14·85	2,402·30	24·79
1,263	25,664	67	123	29	18	27,164	27·36	27·99	5·62	14·90	12·38	15·98	27·45
1,378	17,519	114	8	5	5	19,029	25·69	26·72	13·48	5·14	13·89	277·78	26·04
964	28,964	367	3	4	110	30,412	23·59	26·68	19·86	3·08	17·39	1,964·29	26·54
1,892	21,670	20	88	...	...	23,670	22·84	20·06	8·59	17·86	...	...	20·27
2,615	26,178	1,305	148	...	3	30,249	33·36	30·56	25·17	27·58	...	600·00	30·48
4,151	24,689	299	115	...	...	29,254	29·33	25·87	24·24	28·42	...	...	26·29
2,466	18,973	48	6	...	1	21,494	29·21	29·37	14·45	6·93	...	...	29·23
688	11,788	52	440	...	6	12,974	23·48	28·93	33·72	27·29	...	545·45	28·55
1,077	13,798	130	24	194	1,245	16,468	19·87	25·04	11·03	25·08	15·50	194·35	25·86
1,917	6,521	38	3	71	1,090	9,640	30·23	33·28	11·68	4·38	22·71	43·03	33·04
2,007	20,332	105	122	...	...	22,566	29·43	33·11	12·40	4·85	...	....	31·51
360	3,761	9	11	...	1,199	5,340	16·86	1·77	5·37	22·49	...	44·68	20·46
2,871	24,515	892	40	21	41	28,380	32·93	36·82	23·60	14·15	15·87	89·32	35·68
5,414	3,571	...	67	30	15	9,097	38·35	15·72	...	25·28	16·30	28·09	20·55
10,989	4,822	1	1	5	...	15,768	14·69	19·87	8·40	5·21	56·18	...	15·95
3,062	2,951	15	...	...	...	6,028	14·49	19·45	22·83	...	...	...	16·57
12,831	2,954	...	...	...	16	15,801	23·01	30·24	...	...	...	25·48	24·08
7,867	4,408	...	3	3	30	12,311	20·74	20·76	...	125·00	46·87	87·46	23·54
2,833	611	...	...	...	...	3,444	13·54	26·84	...	...	...	...	14·85
82,332	409,107	4,773	3,799	1,658	4,267	505,936	22·09	28·82	20·98	22·24	21·90	51·10	27·38

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	East Khándesh ...	910,489	1,167	919	806	10,640	1,824	2,886	4	5	181
2	West Khándesh ...	434,006	249	331	...	7,030	335	919	...	1	88
3	Násik	771,184	2,141	481	17	9,442	1,156	2,397	6	4	175
4	Thána	762,598	735	335	495	13,178	619	580	21	14	278
5	Kolába	581,621	1,037	254	343	8,430	705	366	1	2	135
	Central Registration District.										
6	Ahmednagar ...	781,862	684	139	36	71,87	3,313	2,807	2	2	161
7	Poona	821,538	2,020	74	1,586	9,209	2,404	2,909	6	5	232
8	Sholápur	589,042	1,298	56	65	5,988	3,191	1,064	4	1	172
9	Sátára	1,095,049	2,641	116	4,841	10,047	4,345	851	5	11	305
10	Ratnágiri	1,132,815	141	348	64	14,058	2,221	1,879	6	3	211
	Southern Registration District.										
11	Belgaum	936,131	4,862	13	2,381	4,330	2,912	2,066	20	18	296
12	Dhárwár	976,302	2,425	5	878	6,765	1,031	1,700	21	38	219
13	Bijápur	706,674	2,275	33	1,102	6,650	2,002	1,593	11	5	159
14	Kánara	426,825	347	7	78	5,360	968	339	7	3	154
	Gujarát Registration District.										
15	Surat	504,854	625	9	304	7,693	146	3,366	9	10	126
16	Broach	238,686	28	...	34	5,686	90	1,104	5	4	57
17	Kaira	646,099	391	6	778	7,668	875	5,563	12	9	195
18	Panch Maháls ...	226,115	...	2	...	4,013	37	118	2	5	70
19	Ahmedabad ...	571,357	111	46	422	13,891	125	1,272	10	13	133
	Sind Registration District.										
20	Karáchi	329,850	166	10	44	3,074	41	58	4	...	96
21	Hyderabad... ...	919,652	419	48	1	12,380	60	76	13	8	133
22	Thar and Párkar ...	358,970	...	1	...	5,619	14	32	1	3	45
23	Lárkhána	641,540	491	18	...	14,123	63	14	4	10	156
24	Sukkur	442,538	272	...	...	8,837	56	48	5	6	79
25	Upper Sind Frontier.	221,258	80	7	...	2,976	5	...	2	3	36
	Total of Districts ...	16,027,055	24,555	3,258	14,275	204,274	28,538	33,499	181	183	3,892
	B.—TOWNS.										
	East Khándesh District.										
1	Jalgaon	15,874	8	20	7	90	31	56	...	...	5
2	Chopda	18,612	41	4	...	70	13	50	...	...	7
3	Nasirabad	12,176	34	69	99	92	23	66	...	...	4
	West Khándesh District.										
4	Dhulia	24,726	4	11	3	125	34	97	...	...	2
5	Nandurbár... ...	10,922	45	36	...	180	8	19	...	...	3

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1909.*

RIES.		11	12	13										14
				RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
28	218	10,874	29,334	1·28	1·01	·88	11·69	2·01	3·17	·23	11·94	32·21	29·24	1
29	118	4,694	13,676	0·57	·76	...	16·22	·77	2·11	·27	10·81	31·51		2
44	229	9,602	25,465	2·78	·62	·02	12·24	1·50	3·11	·30	12·45	33·02	39·02	3
103	416	4,628	20,986	·96	·44	·65	17·28	·81	·76	·55	6·07	27·52	32·04	4
48	186	4,163	15,484	1·78	·44	·59	14·49	1·21	·63	·32	7·16	26·62	33·35	5
32	197	5,988	19,801	·81	·18	·05	9·19	4·24	2·95	·25	7·66	25·33	34·70	6
45	288	3,578	22,060	2·45	·09	1·93	11·21	2·93	3·53	·35	4·36	26·85	35·18	7
33	210	2,853	14,725	2·20	·10	·11	10·16	5·43	1·80	·36	4·84	25·00	32·61	8
56	377	5,874	29,092	2·41	·11	4·42	9·17	3·97	0·78	·34	5·36	26·57	38·78	9
276	496	3,749	22,956	·12	·31	·05	12·41	1·96	1·67	·43	3·31	20·26	22·33	10
34	368	10,739	27,671	5·20	·00	2·54	4·63	3·11	2·21	·39	11·47	29·56	34·62	11
20	298	11,218	24,320	2·48	·00	0·90	6·93	1·06	1·74	·31	11·49	24·91	30·14	12
14	189	6,935	20,779	3·22	·05	1·56	9·41	2·83	2·25	·27	9·81	39·40	37·89	13
15	179	5,125	12,403	·81	·02	·18	12·56	2·27	·80	·42	12·01	29·07	32·39	14
35	180	1,493	13,816	1·24	·02	0·60	15·24	0·29	6·67	·36	2·95	27·37	32·72	15
25	91	1,082	8,115	0·12	...	0·14	23·82	0·38	4·63	·38	4·53	34·00	38·65	16
96	312	4,632	20,225	0·61	·01	1·20	11·87	1·35	8·61	·48	7·17	31·30	42·92	17
33	110	431	4,711	...	·01	...	17·75	·16	0·52	·49	1·90	20·83	24·18	18
83	239	701	16,807	·19	·08	·74	24·31	·22	2·23	·42	1·23	29·42	36·20	19
58	158	357	3,908	·50	·03	·13	9·32	·12	·18	·48	1·08	11·85	15·36	20
127	281	246	13,511	·46	·05	...	13·46	·06	·08	·31	·27	14·69	16·46	21
95	144	91	5,901	...	...	...	15·65	·04	·09	·40	·26	16·44	20·71	22
48	218	313	15,240	·77	·03	...	22·01	·10	·02	·34	·49	23·76	21·79	23
17	107	103	9,423	·61	...	...	19·97	·13	·11	·24	·23	21·29	26·24	24
12	53	13	3,134	·36	·03	...	13·45	·02	...	·24	·06	14·16	17·07	25
1,406	5,662	99,482	413,543	1·53	·20	·89	12·75	1·78	2·09	·35	6·21	25·80	31·53	
...	5	245	462	·50	1·26	·44	5·67	1·95	3·53	·32	15·43	29·10	Not available.	1
1	8	130	316	2·20	·21	...	3·96	·70	2·69	·43	6·98	16·97	25·25	2
...	4	96	483	2·79	5·67	8·13	7·56	1·89	5·42	·33	7·88	39·67	39·18	3
1	3	368	645	·16	·44	·12	5·06	1·38	3·92	·12	14·88	26·08	27·46	4
1	4	90	382	4·12	3·30	...	16·48	·73	1·74	·36	8·24	34·97	36·55	5

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Násik District.										
6	Násik	21,490	519	50	1	240	115	112	...	...	19
7	Yeola	16,559	16	18	...	111	51	117	...	...	8
8	Devláli Cantonment.	2,894	24	...	1	21	2	2	...	...	...
9	Málegaon do. ...	3,222	7	...	35	27	3	6	1	...	3
	Thána District.										
10	Thána	15,410	22	9	43	110	40	30	1	...	10
11	Kalyán	10,749	36	24	1	119	41	25	...	...	9
12	Bándra	22,075	13	8	111	56	49	44	1	...	10
	Kolába District.										
13	Panvel	10,152	3	23	71	46	16	33	1	...	4
14	Alibág	5,996	1	...	21	21	5	9	...	...	3
15	Mahád	7,738	...	...	...	54	9	1	...	...	4
16	Bombay City ...	959,537*	726	471	5,186	2,747	2,543	9,903	55	22	602
	Ahmednagar District.										
17	Ahmednagar ...	35,784	1	1	1	204	50	334	1	...	11
18	Sangamner... ...	13,801	30	...	...	58	49	30	...	...	2
19	Ahmednagar Cantonment.	5,370	...	2	7	15	11	16	1	...	...
	Poona District.										
20	Poona	120,543	190	408	140	640	592	758	...	...	12
21	Junnar	9,675	8	...	97	40	22	26	...	...	3
22	Poona Cantonment	26,549	18	25	8	112	52	97	...	...	9
23	Kirkee do. ...	10,797	...	6	...	67	23	47	...	...	1
	Sholápur District.										
24	Sholápur	74,898	20	2	25	1,119	564	239	4	2	41
25	Bársi	24,242	8	...	13	223	69	66	...	2	9
26	Pandharpur ...	32,405	146	...	48	358	262	48	1	...	8
	Sátára District.										
27	Sátára	25,493	90	...	289	152	134	49	1	...	5
28	Wái	13,989	68	...	114	38	23	19	...	...	...
29	Karád	11,499	15	1	1	50	40	14	1	...	9
	Ratnágiri District.										
30	Vengurla	19,018	2	...	156	152	30	68	...	...	7
31	Ratnágiri	16,042	...	6	...	143	18	9	1	...	2

* Population according to the Census of 1906

VI—*continued.*

	11	12	13										14
RIES.			Ratio of Deaths per 1,000 of Population.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	19	511	1,567	24·15	2·33	·05	11·17	5·35	5·21	·88	23·78	72·92	69·42	6
1	9	156	478	·96	1·08	...	6·70	3·08	7·06	·54	9·42	28·87	45·47	7
...	...	11	61	8·29	....	·34	7·26	·69	·69	...	3·80	21·07	20·04	8
...	4	30	112	2·17	...	10·86	8·38	·93	1·86	1·24	9·31	34·76	36·93	9
...	11	249	514	1·43	·58	2·79	7·14	2·60	1·95	·71	16·16	33·36	34·71	10
...	9	151	406	3·35	2·22	·09	11·07	3·82	2·33	·84	14·05	37·77	41·59	11
2	13	365	659	·59	·36	5·03	2·54	2·22	1·99	·59	16·53	29·85	Not available.	12
...	5	114	311	·30	2·27	6·99	4·53	1·58	3·25	·49	11·23	30·64	29·85	13
...	3	65	125	·17	...	3·50	3·50	·83	1·50	·50	10·84	20·84	26·18	14
...	4	69	137	...	...	...	6·98	1·16	·13	·52	8·91	17·70	24·81	15
4	683	12,235	34,494	·76	·49	5·40	2·55	2·65	10·32	·71	12·75	35·95	52·87	16
...	12	52	655	0·03	0·03	0·03	5·70	1·40	9·33	0·34	1·45	18·30	53·12	17
...	2	62	231	2·17	0·00	0·00	4·20	3·55	2·17	0·15	4·49	16·74	32·17	18
...	1	11	63	0·00	0·37	1·30	2·79	2·05	2·98	0·19	2·05	11·73	12·48	19
1	13	1,321	4,062	1·58	3·38	1·16	5·31	4·91	6·29	0·11	10·96	33·70	59·99	20
2	5	30	228	0·83	0·00	10·03	4·13	2·27	2·69	0·52	3·10	23·57	24·08	21
1	10	285	607	0·68	0·94	0·30	4·22	1·96	3·65	0·38	10·73	22·86	41·32	22
...	1	63	207	0·00	0·56	0·00	6·20	2·13	4·35	0·09	5·84	19·17	34·08	23
5	52	584	2,605	0·27	0·03	0·33	14·94	7·53	3·19	0·70	7·79	34·78	45·55	24
...	11	253	643	0·33	0·00	0·54	9·20	2·85	2·72	0·45	10·43	26·52	38·32	25
...	9	185	1,056	4·50	0·00	1·48	11·05	8·08	1·48	0·28	5·71	32·58	50·86	26
...	6	107	827	3·53	0·00	11·34	5·96	5·26	1·92	0·24	4·19	32·44	39·66	27
...	...	63	325	4·86	0·00	8·15	2·72	1·64	1·36	0·00	4·50	23·23	48·61	28
3	13	34	168	1·30	0·09	0·09	4·35	3·48	1·22	1·13	2·95	14·61	31·48	29
1	8	71	487	0·10	0·00	8·20	7·99	1·58	3·58	0·42	3·73	25·60	22·82	30
...	3	48	227	0·00	0·37	0·00	8·92	1·12	0·56	0·19	2·99	14·15	28·55	31

FORM No.1

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Belgaum District.										
32	Belgaum	26,237	111	3	367	21	35	51	...	... 3	7
33	Gokák	9,860	94	...	386	29	50	15	...	...	7
34	Athni	11,107	13	...	216	39	108	24	...	1	3
35	Belgaum Cantonment.	8,927	3	...	2	19	12	22	...	...	2
	Dhárwár District.										
36	Dhárwár	30,593	165	...	299	160	50	104	3	...	19
37	Hubli	60,214	724	...	62	137	68	318	1	1	16
38	Gadag-Bettigeri ...	30,652	294	...	27	27	13	82	1	...	17
39	Ránebennur ...	14,851	9	...	139	38	17	35	...	...	11
	Bijápur District.										
40	Bijápur	23,776	31	...	...	22	9	208	1	...	9
41	Kaládgi	4,950	32	...	1	32	12	9	...	...	2
	Kánara District.										
42	Kárwár	16,774	8	...	...	100	26	11	...	...	10
43	Kumta	10,818	30	...	...	66	39	22	...	...	2
	Surat District.										
44	Surat	119,171	28	...	...	702	92	949	1	1	15
45	Bulsár	12,857	9	1	61	93	8	132	1	...	2
	Broach District.										
46	Broach	42,862	70	...	1	259	38	437	2	...	16
47	Jambusar	10,181	...	...	...	77	13	119	1	...	2
	Kaira District.										
48	Kaira	10,313	...	3	...	68	2	154	...	1	4
49	Nadiád	31,435	90	...	3	381	59	383	2	1	11
50	Borsad	13,001	...	...	4	114	61	138	...	2	9
51	Kapadvanj	15,405	...	...	9	196	34	146	...	...	5
	Panch Mahál District.										
52	Godhra	20,898	...	...	...	122	27	34	1	...	5
53	Dohad	13,990	...	...	...	212	5	6	...	...	4
	Ahmedabad District.										
54	Ahmedabad ...	181,774	298	547	31	4,225	257	2,898	5	4	71
55	Gogha	4,798	...	...	...	69	9	48	...	...	2
56	Viramgám	18,952	...	1	...	305	12	155	...	...	6
57	Dholka	14,971	13	...	...	231	24	84	...	...	12
58	Ahmedabad Cantonment.	3,492	...	...	...	33	1	...	...	...	...

VI—*continued.*

		11	12	13										14
RIES.				Ratio of Deaths per 1,000 of Population.								From all Causes.		
Snake-bite, (2) killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
...	10	475	1,173	4·23	0·12	13·99	4·61	1·33	1·94	0·38	18·10	44·70	35·03	32
...	7	125	706	9·53	...	39·15	2·94	5·07	1·52	0·71	12·68	71·60	38·84	33
...	4	143	547	1·17	...	19·45	3·51	9·72	2·16	0·36	12·87	49·24	45·20	34
...	2	92	152	0·34	...	0·22	2·13	1·34	2·46	0·22	10·31	17·02	25·99	35
2	24	503	1,305	5·39	...	9·77	5·23	1·63	3·40	0·78	16·44	42·66	38·79	36
...	18	988	2,315	12·02	...	1·03	2·28	1·13	5·28	0·30	16·41	38·45	32·14	37
1	19	384	846	9·59	...	0·88	0·88	0·42	2·68	0·62	12·53	27·60	29·85	38
...	11	219	468	0·61	...	9·36	2·56	1·14	2·36	0·74	14·75	31·51	33·06	39
...	10	318	598	1·30	...	...	0·93	0·38	8·75	0·42	13·37	25·15	24·39	40
...	2	29	117	6·46	...	·20	6·46	2·42	1·82	0·40	5·86	23·64	32·73	41
...	10	108	263	·48	...	...	5·96	1·55	0·66	0·59	6·44	15·68	18·00	42
...	2	149	308	2·77	...	...	6·10	3·61	2·03	0·18	13·77	28·47	27·45	43
...	17	505	2,293	·24	·00	·00	5·89	0·77	7·96	0·14	4·24	19·24	40·08	44
...	3	52	359	·70	·08	4·74	7·23	0·62	10·27	0·23	4·05	27·92	26·66	45
2	20	454	1,279	1·63	·00	·02	6·04	0·89	10·20	0·47	10·59	29·84	35·82	46
3	6	31	246	·00	·00	·00	7·56	1·28	11·69	0·59	3·04	24·16	37·11	47
...	5	47	279	·00	·29	·00	6·59	0·19	14·93	0·49	4·56	27·05	37·43	48
...	14	242	1,172	2·86	·00	·00	12·12	1·88	12·18	0·44	7·70	37·28	49·58	49
1	12	81	410	·00	·00	·31	8·77	4·69	10·62	0·92	6·23	31·54	46·51	50
1	6	89	480	·00	·00	·58	12·72	2·21	9·48	0·39	5·78	31·16	44·73	51
...	6	132	321	·00	·00	·00	5·84	1·29	1·63	0·29	6·31	15·36	31·51	52
1	5	80	308	·00	·00	·00	15·15	0·36	0·43	0·36	5·72	22·02	37·63	53
4	84	1,839	10,179	1·65	3·02	·17	23·32	1·42	16·00	·46	10·15	56·19	56·82	54
...	2	9	137	·00	·00	·00	14·38	1·88	10·00	·41	1·88	28·55	44·56	55
...	6	229	708	·00	·05	·00	16·10	0·63	8·18	·32	12·08	37·36	55·33	56
3	15	147	514	·87	·00	·00	15·43	1·60	5·61	1·00	9·82	34·33	54·65	57
...	...	1	35	·00	·00	·00	8·02	0·24	·00	·00	·24	8·50	11·37	58

FORM No.

1	2	3	4	5	6	7	8	9	10		
											Inju
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Karáchi District.										
59	Karáchi	112,900	...	11	1,953	778	88	415	3	1	48
	Hyderabad District.										
60	Hyderabad ...	68,823	3	...	5	1,055	367	471	...	...	24
	Thar and Párkar District.										
61	Umarkot	4,899	...	...	...	114	5	4	1	...	1
	Lárkhána District.										
62	Lárkhána	14,543	9	...	...	381	...	4	...	...	6
	Sukkur District.										
63	Shikárpur	49,491	3	...	...	1,023	14	33	3	...	8
64	Sukkur	30,890	27	...	...	675	24	33	2	2	12
	Upper Sind Frontier District.										
65	Jacobabad	10,727	...	1	...	231	...	...	...	...	...
	Total of Towns ...	2,653,269	4,159	1,761	10,044	19,614	6,501	19,934	97	43	1,180
	Total for the Presidency ...	18,481,362	28,714	5,019	24,319	223,888	35,039	53,433	278	226	5,072

N. B.—Total population of towns includes population of Bombay City (959,537) according to the Census of 1906 ; but in

VI—*concluded.*

RIES.		11	12	13										14
				Ratio of Deaths per 1,000 of Population.								From all Causes.		
Snake-bite or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
1	53	1,891	5,189	...	·10	17·30	6·89	·78	3·68	·46	16·75	45·96	55·50	59
3	27	329	2,257	·04	...	0·07	15·33	5·33	6·84	·39	4·78	32·79	39·67	60
...	2	2	127	...	...	...	23·27	1·02	·82	·41	·41	25·92	41·44	61
...	6	161	561	·62	...	...	26·20	...	·28	·41	11·07	38·58	39·19	62
1	12	863	1,948	·06	...	...	20·67	·28	·67	·24	17·44	39·36	47·56	63
1	17	164	940	·87	...	...	21·85	·78	1·07	·55	5·31	30·43	34·25	64
...	...	78	310	...	·09	...	21·53	...	...	...	7·27	28·90	33·65	65
47	1,367	29,013	92,393	1·57	0·66	3·78	7·39	2·46	7·51	0·52	10 93	34·82	46·45	
1,453	7,029	128,495	505,936	1·55	·27	1·32	12·11	1·90	2·89	0·38	6·95	27·38	33·65	

the total population of the Presidency the population of Bombay City (760,475) according to the Census of 1901 is retained.

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1909.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Cholera were reported.	Number in each District.	Number from which deaths from Cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,459	146	...	...	...	126	42	79	337	509	129	28	...	...	609	641	1,250	1·25	1·33	1·29	1·07	1
2	West Khándesh ...	10	8	1,186	42	...	...	...	9	17	5	72	171	13	11	...	...	146	152	298	·61	·65	·64		2
3	Násik	16	16	1,649	229	42	...	...	1,387	203	363	302	309	82	17	2	...	1,323	1,379	2,707	3·21	3·42	3·32	1·27	3
4	Thána	12	12	1,633	91	...	5	...	370	146	101	49	108	16	4	6	1	407	399	806	·96	1·02	·99	1·27	4
5	Kolába	11	8	1,484	97	35	56	10	630	152	35	15	57	44	7	...	...	489	552	1 041	1·60	1·83	1·72	1·96	5
6	City of Bombay ...	1	1	1	1	13	12	3	199	27	60	91	194	87	12	19	9	421	305	726	·70	·85	·76	·50	6
	Central Registration District.																								
7	Ahmednagar	14	13	1,355	77	...	...	...	111	177	124	197	50	6	...	...	...	317	348	665	0·76	0·83	0·79	1·02	7
8	Poona	12	11	1,191	200	...	...	13	675	596	224	327	301	85	12	3	...	1,131	1,105	2,236	2·27	2·25	2·26	2·07	8
9	Sholápur	10	10	719	139	...	...	...	551	291	67	144	121	165	115	18	...	802	670	1,472	2·21	1·87	2·04	2·18	9
10	Sátára	15	14	1,345	205	...	...	...	174	285	966	753	428	160	48	...	...	1,399	1,415	2,814	2·46	2·45	2·46	1·18	10
11	Ratnágiri	10	8	1,308	25	...	...	...	...	35	27	51	29	1	...	...	...	60	83	143	0·11	0 13	0·12	0·07	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	336	4	64	296	1,752	1,840	849	218	38	1	5	16	...	2,641	2,442	5,083	5·27	4·97	5·12	1·04	12
13	Dhárwár	17	17	1,302	235	...	...	...	54	362	1,077	1,594	397	103	18	9	3	1,859	1,758	3,617	3·32	3·18	3·25	·70	13
14	Bijápur	10	10	1,118	217	...	1	109	347	763	445	234	49	77	202	96	15	1,245	1,093	2,338	3 3s	2·98	3·18	1·61	14
15	Kánara	13	10	1,289	63	51	73	93	36	6	49	46	26	...	...	...	...	209	176	385	·89	·80	·85	·41	15
	Gujarát Registration District.																								
16	Surat	10	9	778	62	...	...	93	218	294	85	17	29	20	...	13	3	297	365	662	·93	1·14	1·04	·15	16
17	Broach	8	4	410	8	53	...	...	...	3	...	11	29	1	1	...	...	49	49	98	·33	·34	·34	·06	17
18	Kaira	11	6	609	19	...	...	2	19	156	82	145	66	11	...	...	...	239	242	481	·64	·71	·67	·00	18
19	Panch Mahals ...	7	...	693	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	19
20	Ahmedabad	12	4	874	17	...	...	...	...	2	126	82	104	8	...	...	...	229	193	422	·56	·50	·53	·00	20
	Sind Registration District.																								
21	Karáchi	11	5	633	53	...	...	...	...	5	79	77	5	...	...	...	...	106	60	166	·43	·31	·37	·38	21
22	Hyderabad	14	8	1,412	73	...	...	...	...	...	251	153	16	2	...	...	...	248	174	422	·46	·39	·43	·12	22
23	Thar and Párkar ...	12	...	669	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·02	23
24	Lárkhána	11	8	713	60	...	...	...	1	60	231	157	45	6	...	...	...	294	206	500	·83	·68	·76	·07	24
25	Sukkur	10	6	611	34	...	...	...	5	95	67	58	13	30	23	8	...	179	123	302	·64	·51	·58	·03	25
26	Upper Sind Frontier.	5	2	391	7	...	...	...	...	...	29	51	...	...	...	...	...	51	29	80	39	·28	·34	·01	26
	Total for the Presidency.	289	218	25,909	2,404	198	216	619	6,664	5,497	5,871	5,181	3,197	1,047	503	190	31	14,755	13,559	28,714	1·55	1·56	1·55	·80	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1909.*

1	2	3		4		5												6			7	8			9	10
No.	Districts.	Circles of Registration.		Villages.														Total.			Number of these Deaths among Children.	Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 for previous five years.	No.
		Number in each District.	Number from which deaths from Smallpox were reported.	Number in each District.	Number from which deaths from Smallpox were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Under 1 year.	Under 10 years.	Male.	Female.	Total.		
	Western Registration District.																									
1	East Khándesh ...	16	16	1,459	236	32	192	305	199	114	55	24	4	7	4	5	21	493	519	1,012	339	636	1·02	1·09	1·06	1·30	1
2	West Khándesh ...	10	9	1,186	94	57	85	110	49	36	21	7	1	2	1	...	...	190	188	378	133	204	·80	·82	·80		2
3	Násik	16	14	1,649	155	80	107	110	112	61	28	17	2	5	2	7	18	273	276	549	210	291	·66	·68	·67	·35	3
4	Thána	12	12	1,633	124	31	41	65	67	44	28	16	18	13	8	14	28	194	182	376	109	242	·46	·47	·46	·27	4
5	Kolába	11	9	1,484	120	6	14	19	41	41	33	14	30	21	19	20	29	133	144	277	110	123	·44	·47	·46	·20	5
6	City of Bombay ...	1	1	1	1	39	63	91	78	70	37	21	15	5	5	11	36	268	203	471	134	123	·44	·56	·49	1·01	6
	Central Registration District.																									
7	Ahmednagar	14	13	1,355	58	14	18	25	15	9	9	4	5	5	3	14	21	69	73	142	64	60	0·17	·17	·17	0·19	7
8	Poona	12	10	1,191	39	82	87	142	110	60	16	2	2	6	2	1	3	268	245	513	201	258	·54	·50	·52	·26	8
9	Sholápur	10	7	719	22	7	9	6	3	1	...	2	1	3	2	10	14	37	21	58	23	18	·10	·06	·08	·24	9
10	Sátára	15	11	1,345	50	7	5	14	17	9	12	11	9	4	4	11	14	67	50	117	41	39	·12	·09	·10	·09	10
11	Ratnágiri	10	9	1,308	94	9	14	41	66	65	54	40	22	8	9	11	15	163	191	354	89	170	·30	·31	·30	·15	11
	Southern Registration District.																									
12	Belgaum	11	6	1,077	11	...	3	3	3	1	1	...	1	2	1	1	...	5	11	16	4	9	...	·02	·02	·12	12
13	Dhárwar	17	3	1,302	3	...	...	...	...	1	...	...	...	3	...	...	1	4	1	5	1	...	...	...	...	·17	13
14	Bijápur	10	4	1,118	11	14	7	6	2	3	...	1	...	...	...	...	...	17	16	33	8	10	·05	·04	·04	·25	14
15	Kánara	13	2	1,289	2	...	...	...	2	...	...	...	...	...	...	2	3	4	3	7	...	...	·02	·01	·02	·46	15
	Gujarát Registration District.																									
16	Surat	10	6	778	8	...	1	1	2	2	2	...	...	2	...	...	...	5	5	10	3	5	·02	·02	·02	·11	16
17	Broach	8	...	410	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·16	17
18	Kaira	11	5	609	6	1	...	...	1	3	2	...	2	...	...	...	...	6	3	9	2	5	·22	·01	·01	·10	18
19	Panch Mahals	7	1	693	1	...	...	...	...	...	...	...	1	...	...	1	...	1	1	2	1	...	·01	·01	·01	·17	19
20	Ahmedabad	12	7	874	18	...	8	121	234	159	42	8	1	1	...	2	18	286	308	594	334	224	·70	·79	·75	·29	20
	Sind Registration District.																									
21	Karáchi	11	4	633	4	2	3	4	7	4	1	...	...	...	...	...	...	11	10	21	5	3	·04	·05	·05	·31	21
22	Hyderabad	14	6	1,412	9	2	...	10	2	1	4	3	4	3	...	8	11	27	21	48	11	10	·05	·05	·05	·19	22
23	Thar and Párkar ...	12	1	669	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1	...	...	...	·10	23
24	Lárkhána	11	7	713	10	2	6	...	...	...	2	1	2	...	1	4	...	9	9	18	1	3	·03	·03	·02	·04	24
25	Sukkur	10	...	611	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·22	25
26	Upper Sind Frontier ...	5	2	391	2	...	...	...	1	7	...	...	...	...	...	...	...	3	5	8	...	5	·02	·04	·04	·06	26
	Total for the Presidency.	289	165	25,909	1,079	438	663	1,083	1010	691	345	173	119	82	60	119	236	2,533	2,486	5,019	1,828	2,399	·26	·28	·27	·32	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVERS *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1909.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 for previous five years.	No.
		Number in each District.	Number from which deaths from fevers were reported.	Number in each District.	Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,459	1,253	790	753	834	868	1,004	681	937	1,239	1,209	923	909	745	5,378	5,514	10,892	11·10	11·66	11·38	13·33	1
2	West Khándesh ...	10	10	1,186	980	698	584	587	518	565	384	539	797	630	614	782	637	3,613	3,722	7,335	15·23	16·00	15·61		2
3	Násik	16	16	1,649	1,449	784	672	755	1,035	806	814	818	877	795	669	904	912	5,032	4,809	9,841	12·19	11·94	12·07	16·61	3
4	Thána	12	12	1,633	1,540	1,597	1,267	1,393	1,164	896	809	804	1,054	829	931	1,298	1,371	6,951	6,512	13,463	16·47	16·74	16·60	18·92	4
5	Kolába	11	11	1,484	1,342	992	916	777	727	665	482	609	540	588	611	737	907	4,328	4,223	8,551	14·22	14·02	14·12	21·06	5
6	City of Bombay ... *Central Registration District.*	1	1	1	1	228	277	263	232	272	175	168	225	225	236	234	212	1,765	982	2,447	2·94	2·74	2·55	3·85	6
7	Ahmednagar ...	14	14	1,355	1,188	480	483	576	629	674	672	787	745	636	603	623	556	3,826	3,638	7,464	9·18	8·67	8·92	11·21	7
8	Poona	12	12	1,191	988	661	656	660	880	805	648	798	944	1,008	1,005	983	1,020	5,234	4,834	10,068	10·51	9·85	10·18	13·24	8
9	Sholápur	10	10	719	688	436	351	435	679	744	556	736	833	827	799	681	606	4,108	3,580	7,688	11·34	10·00	10·67	13·51	9
10	Sátára	15	15	1,345	1,246	659	622	860	765	807	859	1,009	1,024	970	919	957	836	5,293	4,994	10,287	9·31	8·67	8·98	10·78	10
11	Ratnágiri	10	10	1,308	1,248	1,235	1,312	1,298	1,203	1,071	1,030	1,303	1,047	1,098	1,144	1,201	1,411	7,115	7,238	14,353	13·00	11·67	12·29	12·67	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	920	391	433	514	539	505	393	272	279	265	307	355	286	2,393	2,145	4,538	4·78	4·36	4·57	5·69	12
13	Dhárwár	17	17	1,302	1,143	625	692	656	577	512	559	567	529	502	505	693	714	3,680	3,447	7,127	6·56	6·24	6·41	7·52	13
14	Bijápur	10	10	1,118	1,005	439	421	504	510	633	512	569	612	669	700	636	499	3,333	3,371	6,704	9·06	9·18	9·12	9·35	14
15	Kánara	13	13	1,289	1,030	494	605	468	404	351	347	435	499	458	459	470	536	2,791	2,735	5,526	11·82	12·52	12·16	14·52	15
	Gujarát Registration District.																								
16	Surat	10	10	778	729	701	689	753	663	687	531	628	674	639	766	898	814	4,284	4,204	8,488	13·48	13·17	13·33	16·22	16
17	Broach	8	8	410	369	478	368	457	453	452	434	465	575	528	634	630	548	3,002	3,020	6,022	20·22	21·09	20·64	20·96	17
18	Kaira	11	11	609	567	594	587	777	762	629	601	695	816	846	776	703	641	4,372	4,055	8,427	11·64	11·90	11·77	12·30	18
19	Panch Mahális ...	7	7	663	548	400	315	391	315	327	260	303	357	396	458	441	381	2,234	2,123	4,357	16·84	16·46	16·66	17·09	19
20	Ahmedabad ...	12	12	874	842	1,667	1,669	1,873	1,650	1,476	1,038	1,306	1,781	1,525	1,559	1,642	1,568	9,720	9,034	18,754	23·85	23·39	23·58	27·39	20
	Sind Registration District.																								
21	Karáchi	11	11	633	633	403	405	338	288	302	325	256	266	239	278	328	426	2,130	1,722	3,852	8·65	8·76	8·70	11·40	21
22	Hyderabad ...	14	14	1,412	1,412	1,806	1,562	1,610	1,156	1,053	824	799	708	710	939	1,066	1,202	7,666	5,769	13,435	14·09	12·98	13·59	15·33	22
23	Thar and Párkar...	12	12	669	669	788	795	875	581	428	361	282	249	251	247	349	527	3,291	2,442	5,733	16·24	15·15	15·76	20·07	23
24	Lárkhána	11	11	713	713	1,587	1,326	1,492	1,173	1,204	1,365	1,192	875	864	1,033	1,200	1,143	7,823	6,681	14,504	22·09	22·12	22·11	29·80	24
25	Sukkur	10	10	611	611	1,435	943	980	821	897	826	694	531	532	797	1,043	936	5,755	4,780	10,535	20·44	19·81	20·14	23·40	25
26	Upper Sind Frontier	5	5	391	391	403	308	287	238	234	234	173	210	169	311	331	304	1,789	1,418	3,207	13·78	13·88	13·82	16·91	26
	Total for the Presidency ...	289	289	25,909	23,505	20,826	19,011	20,413	18,834	17,999	15,720	17,141	18,382	17,508	18,323	20,090	19,738	116,896	106,992	223,888	12·27	11·95	12·11	13·80	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1909.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 for previous five years.	No.
		Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,459	521	279	257	59	77	89	128	226	299	212	107	85	73	1,004	887	1,891	2·08	1·88	1·98	2·37	1
2	West Khándesh ...	10	10	1,186	164	60	11	15	15	12	32	51	79	53	23	12	14	217	160	377	·91	·68	·80		2
3	Násik	16	16	1,649	432	51	28	50	171	98	135	192	217	150	88	72	75	693	634	1,327	1·68	1·57	1·62	3·69	3
4	Thána	12	12	1,633	282	82	56	58	114	64	48	63	91	71	29	25	48	424	325	749	1·00	·84	·92	1·30	4
5	Kolába... ...	11	11	1,484	383	63	59	46	119	69	41	69	95	69	33	23	49	420	315	735	1·38	1·04	1·21	2·26	5
6	City of Bombay ... *Central Registration District.*	1	1	1	1	200	187	289	262	201	134	217	249	217	170	191	226	1,447	1,096	2,543	2·04	3·05	2·65	4·21	6
7	Ahmednagar	14	14	1,355	849	138	120	136	179	286	337	531	562	393	264	266	231	1,870	1,563	3,423	4·48	3·70	4·09	5·58	7
8	Poona	12	12	1,191	682	136	160	191	241	185	205	360	450	283	348	266	268	1,661	1,432	3,093	3·33	2·92	3·13	4·90	8
9	Sholápur	10	10	719	605	213	132	202	367	209	204	524	646	543	436	314	246	2,124	1,962	4,086	5·86	5·48	5·67	5·58	9
10	Sátára	15	15	1,345	794	275	185	226	321	302	530	638	589	500	413	344	219	2,414	2,128	4,542	4·24	3·68	3·96	4·36	10
11	Ratnágiri	10	10	1,308	721	142	117	80	111	190	178	289	290	240	185	212	285	1,196	1,073	2,269	2·18	1·73	1·94	1·90	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	643	122	216	244	406	369	331	336	268	274	220	186	145	1,553	1,564	3,117	3·09	3·18	3·14	3·84	12
13	Dhárwár	17	17	1,302	354	72	64	85	81	113	101	163	127	108	112	82	71	613	566	1,179	1·09	1·02	1·06	1·48	13
14	Bijápur	10	10	1,118	540	84	73	89	98	122	148	251	269	316	300	171	102	987	1,036	2,023	2·63	2·82	2·75	3·59	14
15	Kánara	13	13	1,289	282	99	90	135	50	45	53	71	107	120	84	89	90	578	455	1,033	2·45	2·08	2·27	2·17	15
	Gujarát Registration District.																								
16	Surat	10	10	778	78	15	12	13	16	26	11	30	43	32	13	15	20	123	118	246	·40	·37	·39	·58	16
17	Broach...	8	8	410	50	16	9	6	8	13	9	9	24	18	10	9	10	75	66	141	·51	·46	·48	·59	17
18	Kaira	11	11	609	205	37	29	38	75	90	84	149	189	143	104	44	49	601	430	1,031	1·60	1·26	1·44	1·09	18
19	Panch Mahális ...	7	6	663	20	2	3	1	9	5	3	13	15	7	5	4	2	35	34	69	·27	·26	·26	·17	19
20	Ahmedabad ...	12	12	874	58	23	24	25	18	33	32	58	86	52	30	19	28	234	194	428	·57	·50	·54	·45	20
	Sind Registration District.																								
21	Karáchi	11	8	633	13	9	12	10	6	9	12	12	13	17	14	9	6	73	57	129	·29	·29	·29	·38	21
22	Hyderabad	14	11	1,412	20	45	42	49	40	35	27	25	36	25	21	41	41	250	177	427	·46	·40	·43	·49	22
23	Thar and Párkar ...	12	6	669	13	...	2	5	5	3	...	...	...	1	1	...	2	11	8	19	·05	·05	·05	·05	23
24	Lárkhána	11	9	713	22	2	1	0	1	1	30	10	11	3	...	1	3	33	30	63	·09	·10	·10	·04	24
25	Sukkur...	10	6	611	12	8	5	5	10	5	13	14	6	10	5	7	6	58	36	94	·21	·15	·18	·16	25
26	Upper Sind Frontier	5	2	391	3	...	...	...	...	...	...	...	2	1	1	...	1	5	...	5	...	·01	·02	·06	26
	Total for the Presidency ...	289	267	25,909	7,752	2,173	1,944	2,057	2,800	2,554	2,826	4,251	4,763	3,858	3,016	2,487	2,810	18,703	16,336	35,039	1·96	1·83	1·90	2·96	

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1909.*

1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh ...	16	16	1,459	740	325	270	285	226	197	165	216	253	261	273	327	270	1,635	1,423	3,058	3·38	3·01	3·20	3·20	1
2	West Khándesh...	10	10	1,186	408	100	101	110	82	64	56	74	82	82	76	104	104	585	450	1,035	2·46	1·93	2·20		2
3	Násik ...	16	16	1,649	811	237	207	213	225	168	185	207	258	204	238	228	263	1,317	1,317	2,634	3·19	3·27	3·23	3·23	3
4	Thána ...	12	12	1,633	262	60	80	57	65	60	31	47	64	47	56	61	51	373	306	679	·88	·79	·84	1·01	4
5	Kolába ...	11	11	1,484	212	44	41	38	21	22	31	28	40	39	35	35	35	224	185	409	·73	·61	·67	·86	5
6	City of Bombay...	1	1	1	1	1,010	1,006	908	960	684	708	719	749	768	761	806	824	5,430	4,473	9,903	9·04	12·46	10·32	13·19	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,355	766	220	178	182	211	224	226	270	274	225	240	227	210	1,343	1,344	2,687	3·22	3·21	3·21	4·18	7
8	Poona ...	12	12	1,191	711	201	125	176	327	380	304	356	602	640	259	230	229	1,974	1,855	3,829	3·97	3·78	3·87	3·54	8
9	Sholápur ...	10	10	719	376	89	73	99	67	62	107	119	181	174	179	117	150	672	745	1,417	1·85	2·08	1·97	1·65	9
10	Sátára ...	15	14	1,345	337	80	65	58	66	58	72	65	89	96	115	99	70	445	488	933	·78	·85	·81	0·82	10
11	Ratnágiri ...	10	10	1,368	654	205	215	176	130	111	128	143	153	160	177	178	180	1,054	902	1,956	1·93	1·45	1·68	1·91	11
	Southern Registration District.																								
12	Belgaum ...	11	11	1,077	618	171	186	246	236	191	139	137	160	180	158	179	195	1,174	1,004	2,178	2·34	2·04	2·19	2·35	12
13	Dhárwár ...	17	17	1,302	571	196	187	217	151	146	147	251	191	170	168	194	221	1,013	1,226	2,239	1·81	2·22	2·01	2·05	13
14	Bijápur ...	10	10	1,118	542	152	131	123	101	148	136	152	145	185	133	188	166	903	907	1,810	2·45	2·47	2·46	2·67	14
15	Kánara ...	13	13	1,289	182	28	39	44	34	24	18	31	15	37	33	37	32	217	155	372	·92	·71	·82	·88	15
	Gujarát Registration District.																								
16	Surat ...	10	10	778	552	406	363	412	334	356	299	388	338	325	374	425	422	2,445	2,002	4,447	7·70	6·27	6·98	8·66	16
17	Broach ...	8	8	410	240	147	157	133	129	148	121	140	158	134	135	121	137	930	730	1,660	6·26	5·09	5·69	6·73	17
18	Kaira ...	11	11	609	526	429	421	509	554	565	499	614	753	578	541	478	443	3,433	2,951	6,384	9·14	8·66	8·91	9·55	18
19	Panch Mahális ...	7	7	693	61	12	15	18	8	10	9	14	4	13	17	19	19	106	52	158	·80	·40	·61	·68	19
20	Ahmedabad ...	12	11	874	249	356	310	412	340	314	287	401	515	420	390	349	363	2,389	2,068	4,457	5·87	5·33	5·60	4·58	20
	Sind Registration District.																								
21	Karáchi ...	11	10	633	18	52	4	44	33	35	41	37	69	28	31	39	48	285	188	473	1·16	·96	1·07	1·39	21
22	Hyderabad ...	14	11	1,412	21	69	57	58	43	56	36	28	35	35	44	31	55	263	284	547	·48	·64	·55	·66	22
23	Thar and Párkar.	12	6	660	10	...	13	9	8	1	1	...	...	...	...	1	8	20	16	36	·10	·10	·10	·10	23
24	Lárkhána ...	11	7	713	12	1	7	...	...	1	...	2	1	...	5	1	...	11	7	18	·03	·02	·03	·05	24
25	Sukkur ...	10	7	611	9	12	13	13	11	9	4	5	4	7	12	7	10	79	35	114	·28	·15	·22	·25	25
26	Upper Sind Frontier ...	5	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·01	26
	Total for the Presidency ...	289	265	25,909	8,589	4,602	4,311	4,540	4,357	4,034	3,748	4,444	5,103	4,808	4,500	4,481	4,505	28,320	25,113	53,433	2·97	2·81	2·89	3·11	

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1909.*

1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh...	16	9	1,459	22	...	1	...	1	...	...	...	45	156	339	159	212	512	400	912	1·05	·84	·95	4·27	1
2	West Khándesh...	10	1	1,186	1	...	...	...	...	...	...	...	1	...	2	...	...	1	2	3	...	...	...		2
3	Násik ...	16	7	1,649	11	5	2	2	1	...	...	4	...	1	7	18	14	28	26	54	·06	·06	·06	4·80	3
4	Thána ...	12	10	1,633	49	39	46	75	108	84	38	34	78	64	16	34	34	364	286	650	·86	·74	·82	1·20	4
5	Kolába ...	11	7	1,484	39	60	63	90	88	22	4	9	42	28	27	21	30	226	209	435	·74	·69	·72	1·15	5
6	City of Bombay...	1	1	1	1	65	277	1,488	1,785	987	160	112	140	75	47	25	25	3,577	1,609	5,186	5·95	4·48	5·40	12·56	6
	Central Registration District.																								
7	Ahmednagar ...	14	6	1,355	9	2	14	13	5	...	...	1	...	1	1	...	7	25	19	44	·06	·05	·05	3·67	7
8	Poona ...	12	10	1,191	100	398	214	113	36	9	1	80	213	241	266	154	106	872	959	1,831	1·75	1·95	1·85	6·23	8
9	Sholápur ...	10	7	719	24	100	34	15	...	...	1	...	1	...	...	...	...	72	79	151	·20	·23	·21	4·18	9
10	Sátára ...	15	14	1,345	204	190	205	162	63	28	34	160	282	723	1,281	1,170	938	2,508	2,737	5,245	4·41	4·74	4·58	14·85	10
11	Ratnágiri ...	10	6	1,308	10	38	77	48	38	6	1	...	8	...	...	...	4	105	115	220	·19	·19	·19	·38	11
	Southern Registration District.																								
12	Belgaum ...	11	11	1,077	132	378	375	288	127	55	22	62	255	483	546	425	336	1,651	1,701	3,352	·29	3·46	3·38	9·67	12
13	Dhárwár ...	17	14	1,302	67	228	151	70	15	4	17	69	174	176	189	176	136	680	725	1,405	·21	1·31	1·26	5·80	13
14	Bijápur ...	10	7	1,118	25	1	...	1	...	...	...	17	91	305	321	220	144	594	509	1,103	·61	1·39	1·50	8·34	14
15	Kánara ...	13	2	1,289	6	...	8	26	19	6	6	...	11	2	...	...	...	45	33	78	·19	·15	·17	·40	15
	Gujarát Registration District.																								
16	Surat ...	10	5	778	31	47	43	41	23	21	7	16	25	23	40	47	32	152	213	365	·48	·67	·57	4·89	16
17	Broach ...	8	2	410	4	...	...	28	7	...	...	...	...	...	...	...	...	14	21	35	·09	·15	·12	3·13	17
18	Kaira ...	11	9	609	49	88	133	267	66	2	...	...	2	34	42	68	92	384	410	794	1·02	1·20	1·11	11·56	18
19	Panch Mahális ...	7	...	693	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3·65	19
20	Ahmedabad ...	12	7	874	27	20	64	87	35	4	...	3	49	49	66	47	29	205	248	453	·50	·64	·57	4·33	20
	Sind Registration District.																								
21	Karáchi ...	11	4	633	6	134	159	363	403	288	63	86	54	73	92	123	159	1,114	883	1,997	4·52	4·49	4·51	6·28	21
22	Hyderabad ...	14	2	1,412	2	...	1	2	2	...	...	...	...	...	...	1	...	6	...	6	·01	...	·01	·11	22
23	Thar and Párkar.	12	...	660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
24	Lárkhána ...	11	...	713	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	24
25	Sukkur ...	10	...	611	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·05	25
26	Upper Sind Frontier ...	5	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·07	26
	Total for the Presidency ...	289	141	25,909	819	1,793	1,867	3,179	2,772	1,517	354	653	1,474	2,434	3,282	2,696	2,298	13,135	11,184	24,319	1·38	1·25	1·32	5·06	

N. B.—These figures do not include deaths among Europeans, Eurasians and Fighting men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

FORTY-SEVENTH ANNUAL REPORT

OF THE

Sanitary Commissioner for the Government of Bombay

1910

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency,

AND

The Annual Reports of the Health Officers of the Ports of Bombay, Karachi and Aden.

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1911

ANNUAL SANITARY REPORT, 1910.

(Maximum limit, 25 p...)

CONTENTS.

SECTION I.—METEOROLOGY—*Nil.*

SECTION II.—EUROPEAN ARMY—*Nil.*

SECTION III.—NATIVE ARMY—*Nil.*

SECTION IV.—JAILS—*Nil.*

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

PARA.		PAGE
1.	Territorial changes	1
2—3.	Births and deaths among Europeans and Eurasians	*ib.*
4—5.	Native population in the Presidency	*ib.*
	BIRTHS.	
6.	Number of registered births	1—2
7.	Births by sexes	2
8.	Births by years	*ib.*
9.	Birth-rates in urban and rural population	*ib.*
10.	Birth-rates in rural registration circles	*ib.*
11.	Birth-rates in urban and cantonment circles	*ib.*
12.	Still-born	*ib.*
	DEATHS.	
13.	Number of deaths	3
14.	Deaths by years	*ib.*
15.	Death-rate	*ib.*
16.	Male and female death-rate	*ib.*
17.	Deaths by registration districts	*ib.*
18.	Deaths by collectorates	*ib.*
19.	Birth and death-rates compared by collectorates to columns 6 and 9, Annual Form II	*ib.*
20.	Deaths by ages and sexes, Annual Form IV	*ib.*
21.	Deaths by caste or class...	*ib.*
22—23.	Infant mortality	3—5
24.	Statistics of Ahmedabad	5
25.	Deaths by causes	*ib.*
26.	Death-rates among urban and rural population	*ib.*
27.	Death-rates in rural circles	*ib.*
28.	Death-rates in town circles	*ib.*
29.	Death-rates in cantonments in British territory...	6
	CANTONMENTS IN QUASI-FOREIGN TERRITORY.	
30.	Statistics of cantonments in quasi-foreign territory	6

PARA. PAGE

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

31. Mortality in 1910 7
32. Deaths by collectorates... ... ... *ib.*
33. Monthly mortality ... ... *ib.*
34. Mortality for 20 years, 1891 to 1910 inclusive ... ... *ib.*
35. Cholera-producing causes and preventive measures adopted ... 7—8

SMALL-POX.

36. Deaths from small-pox ... ... 8—9
37. Deaths by registration districts and collectorates 9
38. Deaths by age 10
39. Preventive measures adopted ... ... *ib.*

FEVER.

40. Deaths from fever 10
41. Deaths by registration districts and collectorates ... ... *ib.*
42. Deaths by months ... ... *ib.*
43. Malarial fevers ... ... 10—12

RAINFALL.

44. Rainfall ... ... 12—13

PLAGUE.

45. Deaths from plague 13
46. Deaths by registration districts and collectorates ... ... *ib.*
47. Deaths by months ... ... *ib.*
48. Plague preventive measures ... ... 13—14
49. Inoculation 14
50. Deaths among the inoculated ... ... *ib.*

DYSENTERY AND DIARRHŒA.

51. Deaths from dysentery and diarrhœa 14
52. Deaths by registration districts and collectorates 15
53. Deaths by months ... ... *ib.*

INJURIES.

54. Deaths from injuries 15
55. Deaths from injuries in 1909 and 1910 by sexes ... ... *ib.*
56. Deaths by snake-bite 16

RESPIRATORY DISEASES.

57. Deaths from respiratory diseases 16
58. Deaths by registration districts and collectorates ... ... *ib.*
59. Deaths by months ... ... *ib.*

OTHER CAUSES.

60. Deaths from other causes ... ... 16—17
61. Deaths by registration districts and collectorates 17

SECTION VII.

62. General history of vaccination 18

SECTION VIII.

63. Sanitary Works—Military 18

PARA. PAGE

SECTION IX.

SANITARY WORKS—CIVIL.

64. Expenditure on sanitary works in municipal towns during the year 1909-1910 18
65. Expenditure on sanitary works in district and Táluka Local Boards during the year 1909-1910 ... ... 19—20
66. Bombay Village Sanitation Act 20
67. Village Sanitary Inspection Book ... ... 20—21

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

68. Charge of the office of the Sanitary Commissioner 21
69. The districts visited by the Sanitary Commissioner ... ... *ib.*
70. Tours of the Deputy Sanitary Commissioners ... ... *ib.*

APPENDIX I.

Annual Report of the Sanitary Board for 1910 ... ... 1—5

APPENDIX II(*a*).

Annual Report of the Health Officer of the Port of Bombay for 1910 ... 6—13

APPENDIX II(*b*).

Annual Report of the Health Officer of the Port of Karáchi ... ... 14—16

APPENDIX II(*c*).

Annual Report of the Health Officer of the Port of Aden ... ... 17—20

APPENDIX III.

Table showing the drainage and water-works completed in certain towns ... 21

APPENDIX IV.

Births registered in districts 22
Deaths registered in districts 23
Deaths registered in the districts during each month of the year ... 24
Deaths registered in the districts according to age ... ... 26—27
Deaths registered in the districts according to classes ... ... 28—29
Deaths from different causes in the districts and towns ... ... 30—37
Deaths from cholera in the districts during each month of the year ... 38
Deaths from small-pox in the districts during each month of the year ... *ib.*
Deaths from fever in the districts during each month of the year ... 39
Deaths from dysentery and diarrhœa in the districts during each month of the year ... ... *ib.*
Deaths from respiratory diseases in the districts during each month of the year 40
Deaths from plague in the districts during each month of the year ... *ib.*

ANNUAL SANITARY REPORT FOR 1910.

SECTION I.—METEOROLOGY.—No remarks.

SECTION II.—EUROPEAN ARMY.—No remarks.

SECTION III.—NATIVE ARMY.—No remarks.

SECTION IV.—JAILS.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

1. In accordance with Government Notification in the Revenue Department, No. 11462, dated the 26th November 1909, published in the *Bombay Government Gazette*, Part I, dated 2nd December 1909, page 2378, the village of Pachegaon in the Sátára District is transferred to the Sholápur District.

EUROPEAN AND EURASIAN VITAL STATISTICS.

2. The European population in the Bombay Presidency, exclusive of cantonments in *quasi*-foreign territory, is 18,804 according to the census of 1901. During the year 1910, 394 births and 349 deaths were recorded against 326 and 190 in 1909, giving a birth-rate 20·95 per mille against 17·34 in 1909; and a death-rate 18·55 against 10·10.

By sexes, 192 male and 202 female births were recorded against 163 and 163 in 1909; and 225 male and 124 female deaths were recorded against 130 and 60 in 1909.

3. The Eurasian census population of 1901 is 6,557. During the year 140 births were registered against 139 in 1909; and 196 deaths against 103, corresponding to a birth-ratio of 21·35 per mille against 21·20 in 1909; and a death-ratio of 29·89 against 15·71.

Of the births 75 were males and 65 females against 68 and 71 in 1909. Whilst of the deaths, 103 were males and 93 females against 49 and 54 in 1909.

NATIVE POPULATION—VITAL STATISTICS.

4. For the compilation of these statistics, the census figures of 1901 have been used. These show a native population for the Presidency of Bombay, including Sind, of 18,481,362 persons.

5. Statistical returns are received from 26 Collectorates, comprising 224 rural circles and 58 towns and 7 cantonments in British territory, and from 8 cantonments in foreign territory.

The population of the rural circles is 16,027,055, of the town circles 2,584,389*, of the cantonments in British territory 68,980 and of the cantonments in foreign territory 120,736 persons.

Births.

6. The births registered in the Bombay Presidency, including Sind, in the year 1910 numbered 689,701 and were in the proportion of 37·32 per 1,000

* Includes population of Bombay City according to census of 1906.

of population at all ages. These figures show an increase of 32,016 as compared with the previous year, but exceed by 90,773 the mean of the previous ten years.

In Gujarát the birth-rate was 41·31 against 41·16 in 1909. It ranged from 37·74 in the Surat to 52·36 in the Panch Maháls Collectorate and compared with the preceding year there is a decrease in all Collectorates except Panch Maháls and Ahmedabad Collectorates. The three largest towns in the Registration District, Surat, Broach and Ahmedabad show a decrease in the birth-rate as compared with the previous year.

In the Southern Registration District the birth-rate was 36·88 per mille as against 36·26 last year, and varied from 29·97 in Kánara Collectorate to 45·71 in the Bijápur Collectorate, and compared with the preceding year shows the slight increase of 0·62.

In the Western Registration District the recorded birth-rate for the year was 48·61 per mille as against 44·63 last year, and the variations were from 38·19 in the Kolába Collectorate to 64·27 in West Khándesh Collectorate.

In the Central Registration District the birth-rate was 38·69 and varied from 32·15 in the Sátára Collectorate to 47·75 in the Ahmednagar Collectorate.

In Sind the recorded birth-rate was 22·16 per mille of population against 19·73 in 1909. The Deputy Sanitary Commissioner states that improvement in the registration of births is very marked in the year under review. All the districts in Sind show an increase in births as compared with last year.

In Bombay City 19,643 births were registered against 19,563 in the previous year.

Births by sexes, Annual Form I.

7. There were 357,949 male and 331,752 female births recorded during the year against 341,454 and 316,231 in 1909. For every 100 female births there were 107·90 males as compared with 107·98 in the previous year.

The ratio of recorded male to female births varies from 101·99 in Dhárwár District to 136·91 in Hyderabad District.

Births by years.

8. The following statement shows the number of births recorded in each year since 1900 :—

1900	... 505,662	1904	... 648,594	1908	... 660,201
1901	... 465,647	1905	... 611,173	1909	... 657,685
1902	... 631,393	1906	... 625,486	1910	... 689,701
1903	... 576,949	1907	... 610,533		

Birth-rates in urban and rural population.

9. The recorded birth-rates among the urban and rural populations of the Presidency were 26·97 and 38·57 against 26·40 and 36·66 in 1909. Except in the Collectorates of Dhárwár, Kánara and throughout Sind (excluding Upper Sind Frontier) the rural birth-rates exceeded the urban.

Birth-rates in rural registration circles.

10. In 52 rural circles, the birth-rate was above 50 per mille; in 50 it was between 40 and 50 ; in 36 it was between 35 and 40; in 27 it was between 30 and 35; in 28 it was between 20 and 30 ; and in 31 it fell below 20 per mille, and of these rural registration circles no less than 30 are in Sind.

Birth-rates in urban and cantonment circles.

11. Out of 58 towns and 7 cantonments in the Presidency, 7 towns recorded birth-rate exceeding 40 per mille, *viz.*, Karáchi (57·18), Dhulia (51·76), Sholápur (50·76), Athni (48·71), Borsad (45·53), Dholka (44·22) and Lárkhána (43·87).

Still-born.

12. During the year 1910, 9,758 (or 1·41 per cent.) of the total births were registered as still-born against 9,949 or 1·51 in 1909. Of these 5,442 were males and 4,316 females against 5,579 and 4,370 respectively in 1909. The percentage of still-born to total births varies from 0·10 in Ahmednagar Collectorate to 7·93 in Bombay City.

Deaths.

Number of deaths.

13. Among the native population in the rural, town and cantonment circles in the Presidency, 560,003 deaths were registered in 1910 as against 505,936 or 54,067 in excess of 1909. Of the total deaths registered 290,696 occurred among males and 269,307 among females against 264,378 and 241,558 respectively in 1909.

Of these deaths 25,043 (or 4·47 per cent.) were due to plague as against 24,319 (or 4·80 per cent.) last year.

Deaths by years.

14. The following statement shows the number of deaths recorded in each year since 1900 :—

1900	...1,318,783	1904	... 764,914	1908	... 501,838
1901	... 686,134	1905	... 588,394	1909	... 505,936
1902	... 721,462	1906	... 648,019	1910	... 560,003
1903	... 811,525	1907	... 606,606		

Death-rate.

15. The recorded death-rate was 30·30 per mille against 27·38 per mille for 1909, and a decennial mean of 38·69.

Male and female death-rate.

16. The rate per mille of males dying to males living was 30·50 and of females dying to females living 30·08. In 1909 these ratios were 27·74 and 26·98 respectively. For every 100 deaths among females there were 107·94 among males as against 109·45 in the previous year.

These figures vary from 126·43 in Thar and Párkar District to 100·46 in Bijápur Collectorate; while in the Province of Sind the ratio was 121·61 male to every 100 female deaths.

Deaths by Registration Districts.

17. In the Western, Central, Southern, Gujarát and Sind Registration Districts the recorded deaths in 1910 were 137,399, 142,118, 95,627, 89,125, 61,219 as against 111,603, 121,025, 93,971, 82,394, 62,449 in the previous year; showing an increase in each case, except in the Sind Registration District. The recorded deaths in Bombay City were 34,515.

Deaths by Collectorates.

18. Compared with the previous year there was a decrease in the recorded death-rate in the Collectorates of Sátára, Belgaum, Ahmedabad, Thar and Párkar, Lárkhána and Sukkur.

Birth and death-rates compared by Collectorates to columns 6 and 9, Annual Form II.

19. An examination of columns 6 and 9, Annual Form II, shows the death-rate exceeded the birth-rate in the Collectorate of Kánara. In Bombay City the death and birth-rates were 35·97 and 20·47 respectively. For the whole Presidency the birth-rate exceeded the death-rate by 7·02 per 1,000 of population.

Deaths by ages and sexes, Annual Form IV.

20. Deaths by ages are given in Annual Form IV. It will be seen there were 261,561 deaths of children under 5 years of age, which, according to the census of 1901, gives a death-rate of 115·16 per 1,000 living as compared with 90·59 last year. Children under 5 years of age contributed 46·71 per cent. to the total deaths, which is a little more than the average percentage.

Deaths by caste or class.

21. The deaths by classes in each Collectorate are recorded in Annual Form V, Appendix IV.

Infant mortality.

22. The mortality of infants based on the number of registered births was 202·77 per 1,000 against 180·44 during the previous year. The proportions were 210·82 among males and 194·08 among females as compared with 187·60 and 172·71 respectively.

23. In Bombay City the ratio of infant mortality based on recorded statistics was 435·57.

The following extract from the Annual Report for 1910 of the Executive Health Officer, Bombay Municipality, shows what progress has been made during the year as regards the enquiry into the causes of infant mortality and its amelioration :—

"The following table continues the information which has been given for the last three years, summarising the results of the enquiries into the condition of newly-born children and the reports of work done by the Municipal nurses and midwives :—

Summary of inquiries and work of Municipal nurses and midwives.	1908.	1909.	1910.
Total number of births (including still-born) registered	22,034	21,645	21,505
Percentage of still-born to the total number of births registered ...	8·68	8·34	7·28
Number verified by the nurses	12,797	13,677	12·762
Percentage of the number verified to the total	57·9	63·1	59·3
Percentage of confinements unattended	31·0	18·0	15·2
Percentage of confinements attended by unskilled women	43·1	58·3	59·6
Percentage of confinements attended by qualified nurses (including Municipal).	13·6	11·3	12·0
Percentage of confinements attended by Municipal nurses	4·0	4·5	5·6
Percentage of children born in hospitals	12·1	12·3	13·2
Percentage of children born in healthy conditions	53·5	67·8	68·9
Percentage of children fed on breast	67·8	64·9	59·8
Percentage of children dying within 30 days	15·2	12·3	11·8
Percentage of cases where the mothers left home for work	29·9	31·3	27·9

Analysis of the table of work, etc.

An examination of the statement shows that 59·3 per cent. of the total number of births in the City were verified by the nurses and midwives against 63·1 in 1909, thus marking a decrease in verification work compared with the preceding year. But this seems to have been made up for by the larger number of confinements attended by them during the year: for the figure for 1910 (5·6) is a continuation of a progressively increasing percentage.

It will further be noticed that there has been a marked fall in the proportion of confinements wholly unattended; as the figure for 1908 (31), which dropped to 18 in 1909, further declined to 15·2 in 1910. And, concurrently, there has been a perceptible increase in the percentage of confinements attended by qualified nurses compared with last year and a continuation of increase in that attended by unskilled women from 43·1 in 1908 to 58·3 in 1909 to 59·6 in 1910. Hospital births have also increased by one per cent. over last year. On the other hand, the percentage of still-births to the total number of births registered in the City has been steadily declining from year to year. If these facts be taken together, the behaviour of the figures suggests that the explanation of this decline may possibly be found in the diminishing percentage of births wholly unattended, and on the other hand in the increasing utilization of the services of trained and untrained midwives.

Proceeding further, it will be found that the percentage of children born in healthy condition has steadily been increasing; and that the proportion of children fed on breast has dwindled, indicating great recourse to artificial feeding, probably under conditions compelling mothers to leave home for work, whose number, however, exhibits an appreciable diminution in the year under notice.

The most encouraging feature of the figures, however, is the further decline (27·9) in the proportion of infants dying within 30 days of birth.

Infant mortality from principal causes.

The subjoined table gives the number of deaths from principal causes among infants according to the three age-groups of 1 to 30 days, 1 to 6 months, and 7 to 12 months. The corresponding figures for 1909 are added for comparison."

Table:—Deaths among infants from principal causes.

Age-period.	Year.	Small-pox.	Meas-les.	Mala-ria.	Ague and remit-tent fever.	Diar-rhœa and dy-sent-ery.	Prem-ature birth.	Debility.	Nervous system.	Respira-tory system.	All causes.	Percent-age of deaths in each age-pericd to total deaths under 1 year of age.
1 to 30 days	1910 ...	10	...	2	32	28	145	2,219	283	67	2,844	34·46
	1909 ...	6	...	...	33	59	150	2,302	301	62	2,970	36·98
1 to 6 months	1910 ...	115	13	4	83	208	2	300	777	944	2,569	31·12
	1909 ...	58	8	4	70	190	1	264	815	907	2,458	30·60
7 to 12 months	1910 ...	139	43	3	107	438	...	48	342	1,281	2,840	34·41
	1909 ...	70	19	7	78	362	...	60	350	1,262	2,602	32·40
Total ...	1910 ...	264	56	9	222	674	147	2,567	1,402	2,292	8,253	...
	1909 ...	134	27	11	181	611	151	2,626	1,466	2,231	8,030	...

The total mortality among infants has increased owing to greater incidence of small-pox; otherwise the distribution under the various age-periods remains much the same.

"In my last annual report I referred to the inception of a scheme to provide a free lying-in-hospital for the poor, consisting of 100 beds and affording accommodation for different castes, with arrangements to teach nursing to native midwives to be supplied to the poor.

Projected hospital.

This scheme has since been decided upon to be amalgamated with the wider scheme for the founding of an hospital for the sick poor of the City, as the City's memorial to the late King-Emperor Edward VII, so that the projected lying-in-hospital will form an annexe to it."

This report shows steady progress in useful work, but the Health Officer remarks on the inadequacy of ten municipal nurses for a large City like Bombay.

24. The general death-rate in Ahmedabad City fell from 56·19 to 47·29 per mille; the mean for the last five years being 57·13. Plague caused 52, fever 3,318 and respiratory diseases 3,059 deaths, as against 31, 4,225 and 2,898, respectively, last year.

Statistics of Ahmedabad.

There were 4,183 births recorded or 23·09 per mille of population. The deaths exceeding births by 24·20 per mille. The deaths registered under one year of age were 3,098 corresponding to a ratio of 740·62 per 1,000 of births.

25. The subjoined table shows the deaths in 1910, arranged according to causes and contrasted with the results for 1909 and with the mean of the preceding five years :—

Deaths by causes.

	Mean for five years, 1905 to 1909.		1910.		1909.	
	No.	Ratio per 1,000 of population.	No.	Ratio per 1,000 of population.	No.	Ratio per 1,000 of population.
Cholera ...	17,929	·97	3,694	·20	28,714	1·55
Small-pox ...	6,091	·33	4,600	·25	5,019	·27
Plague ...	53,632	2·90	25,043	1·35	24,319	1·32
Fever ...	249,523	13·50	263,523	14·26	223,888	12·11
Dysentery and diarrhœa.	49,350	2·67	46,643	2·52	35,039	1·90
Respiratory diseases .	56,265	3·04	59,880	3·24	53,433	2·89
Injuries ...	6,871	·37	6,885	·37	7,029	·38
Other causes ...	130,498	7·06	149,735	8·10	128,495	6·95
All causes ...	570,159	30·85	560,003	30·30	505,936	27·38

For comments on the causes of deaths, *vide* Section VI.

26. The recorded death-rates among the urban and rural populations and in the 7 Cantonments in British territory are given in Table VI, Appendix IV. The death-rates for the 8 cantonments in Foreign territory will be found in paragraph 30. The urban and rural death-rates were 35·69 and 29·03 per mille; as against 34·82 and 25·80 in 1909. In 12 Collectorates the rural death-rates were in excess of the urban.

27. In 38 rural registration circles the mortality rose above 40 per mille; in 66 the death-rate was between 30 and 40; in 44 it was between 25 and 30, in 35 between 20 and 25; whilst in 41 the record was below 20 per mille; and of these 40 were in Sind. Thirty-eight rural circles recording death-rates of over 40 per mille; and of these 17 were in East and West Khándesh, and 7 in Násik Collectorates; the highest in Ráver (56·68), and Edlabad (53·41) in East Khándesh, Nándgaon (52·13) and Málegaon (53·66) in Násik Collectorate.

Death-rates in rural circles.

28. In 3 town circles, out of a total of 58, the recorded death-rates exceeded 50 per mille, Nadiád, Nasirabad and Sholápur returned rates of 58·63, 52·81 and 51·35, respectively.

Death-rates in town circles,

Death-rate in cantonments in British territory.

29. During the year under report, the death-rates in cantonments, from all causes, were below normal. The highest death-rates were reported from Poona (24·82), Málegaon (21·10) and Belgaum (19·94).

Cantonments in quasi-foreign Territory.

Statistics of cantonments in quasi-foreign territory.

30. The following table shows the vital statistics of the civil population of those cantonments which are situated in quasi-foreign territory. The total number of births registered in these cantonments during the year 1910 was 2,127 against 2,029 in 1909; the birth-rate being 17·62 per mille as against 16·81 in 1909. There were 3,226 deaths, giving a ratio of 26·72 per mille against 3,776 deaths and a ratio of 31·27 in 1909 :—

Statement showing the names of cantonments with population and deaths by diseases for the year 1910.

Cantonments.	Population according to Census of 1901.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from								Ratio of deaths per 1,000 of population.							
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.
Aden. Municipal limits.	36,323	67	537	815	22·44	...	5	1	134	292	...	12	589	1,033	...	·14	·03	3·69	8·04	...	·33	16·22	28·44
Aden. Purely civil population of Cantonment.	206	7	28	...	...	...	...	...	1	...	...	...	1	2	...	...	...	4·85	...	...	...	4·85	9·71
Baroda	2,704	1	2,704	45	16·64	...	11	...	13	5	6	1	19	55	...	4·07	...	4·81	1·85	2·22	0·37	7·03	20·34
Bhúj	741	1·16	638·79	13	17·54	...	...	...	4	2	...	1	2	9	...	...	...	5·40	2·70	...	1·35	2·70	12·15
Deesa	8,566	5	1,713·20	133	15·53	...	...	...	27	21	5	2	84	139	...	...	...	3·15	2·45	·58	·23	9·81	16·23
Mhow	34,740	6	5,790	223	6·42	...	...	56	138	12	...	3	740	949	...	...	1·61	3·97	0·35	...	·09	21·30	27·32
Nasirabad	22,494	8·58	2,621·68	646	28·72	...	...	17	194	49	72	...	231	563	...	...	·76	8·62	2·18	3·20	...	10·27	25·03
Neemuch	14,624	4·52	3,235·40	245	16·75	...	...	219	88	9	12	3	139	470	...	...	14·98	6·02	0·62	·82	·21	9·50	32·14
Rájkot	338	·56	602·58	7	20·71	...	...	...	...	2	...	...	4	6	...	...	...	...	5·92	...	...	11·83	17·75
Total ...	120,736	100·32	1,197	2,127	17·62	...	16	293	599	392	95	22	1,809	3,226	...	0·13	2·43	4·96	3·25	0·79	·18	14·98	26·72

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Mortality in 1910.

31. In Annual Form VII are shown the deaths from cholera for each district by months, the number of registration circles affected, and the number of villages from which cholera was reported, etc.

Deaths by Collectorates.

32. In the year 1910 there were 3,694 deaths recorded as due to cholera, contrasted with 28,714 in 1909. A reference to Annual Form No. VII will show that the disease was chiefly confined to the Province of Sind and to the Collectorate of Kaira, in which areas the cholera mortality was responsible for 83·51 per cent. of the total cholera mortality of the Presidency.

The Collectorates of Thána, Kánára, Surat and Panch Maháls were quite free from the disease; while from West Khándesh, Bijápur and Broach only one cholera death was reported respectively.

Of the total number of recorded deaths, 742 were reported from the Collectorate of Lárkhána; 731 from Kaira; 489 from Karáchi; 445 from Hyderabad; 437 from Sukkur; 234 from the Upper Sind Frontier; 140 from Ahmednagar; 108 from East Khándesh; 106 from Bombay City; and 96 from Násik.

Among the 79 Rural Circles in which cholera was present during the year more than 100 deaths were recorded in each of the following 11 circles :— Sehwan (273) and Johi (206), both of Lárkhána Collectorate; Nádiád (205) and Borsad (130) of Kaira Collectorate; Jati (165), Kotri (115) and Shahabander (114), all of Karáchi Collectorate; Sakrand (154) and Moro (137) of Hyderabad Collectorate; Kopergaon (104) of Ahmednagar Collectorate; and Garhiyasin (102) of Sukkur Collectorate.

Eighteen towns reported deaths from cholera. The highest mortality occurred in Nadiád (193), of Kaira Collectorate; Sukkur (115); Bombay (106); Shikárpur (86); while the remaining 15 towns suffered but lightly.

The disease was not of widespread distribution, incidence being reported from 462 of the 25,846 villages in the whole Presidency, of which 342 villages were located in Sind.

Monthly mortality.

33. In the months of January, February and March, there were 7, 4 and 7 deaths respectively reported from the whole Presidency. In April 15 deaths were returned and in May 99. The mortality began to rise from June, when 539 deaths were recorded in that month and 838 in July. The incidence reached its maximum, 1,021, in August and the number of deaths then suddenly fell to 391 in September, slightly rising again to 471 in October, and continued falling to the end of the year, with 207 and 95 deaths respectively in November and December.

Mortality for 20 years, 1891 to 1910, inclusive.

34. The following table shows the total number of deaths from cholera in each of the 20 years ending 1910 :—

1891	17,850	1896	35,404	1901	13,600	1906	46,119
1892	42,900	1897	57,109	1902	3,229	1907	7,656
1893	18,853	1898	4,368	1903	1,825	1908	1,759
1894	33,588	1899	8,579	1904	13,156	1909	28,714
1895	8,890	1900	163,889	1905	5,396	1910	3,694

Cholera producing causes and preventive measures adopted.

35. The Deputy Sanitary Commissioner, Western Registration District, reports :—

"The Deputy Sanitary Commissioner paid eleven visits to villages and towns on the receipt of information that cases of cholera had arisen. In each case demonstrations of the best method of aborting the spread of the disease by disinfection of excreta and other infective materials were given to the inhabitants usually in the presence of the Mamlatdar and Local Sub-Assistant Surgeon, and the rationale of prophylaxis and the limitation of the spread of the disease explained. Steps were taken also to insure that adequate stocks of permanganate of potash, phenyle and drugs to be used on the occasion of an outbreak of the disease should be kept in the Kacheri of every Taluka head-quarters. This with the thorough comprehension by all officers of the instruction for the prevention of cholera, forming the accompaniment to Government Resolution, General Department, No. 2040 of 2nd May 1910 will help to secure the early suppression of cholera epidemics in the future."

The Deputy Sanitary Commissioner, Central Registration District, observes:—

"The mortality from cholera during the year has been almost insignificant compared to that of 1909. Ahmednagar suffered chiefly. The disease was in all probability introduced from the Monglai territories, where it is always more or less prevalent, and as a large portion of the Collectorate is directly adjacent to that State, there is considerable intercourse between the respective inhabitants.

As usual somewhat elaborate precautions were taken at Pandharpur during the Ashadi Fair in July to prevent the introduction and spread of the disease amongst the enormous number of pilgrims who annually congregate there, with the result that not a single case occurred, which is, I believe, quite unprecedented.

There were a few cases reported there in November on the occasion of the Kartik Ekadashi gathering. I have not the slightest doubt that when things are left entirely in the hands of the Municipality there, the sanitary arrangements are very inefficient.

It generally happens that a certain number of cases of severe diarrhœa and ptomaine poisoning are reported as cholera. Of the 207 deaths recorded this year I find from particulars of the cases received, that at least 23 were of very doubtful origin."

The Deputy Sanitary Commissioner, Sind Registration District, writes:—

"The disease first appeared in Shikarpur town, where a case occurred on 24th April 1910. Sukkur was the next town from which cases were reported, the disease apparently being imported from Shikarpur as there is free and frequent communication between these places. The disease assumed epidemic form in Sukkur town in May and thence spread gradually to other districts.

Details obtained from District Officers show that about 103 fairs (mostly pilgrimages), small and large, take place in the Province of Sind every year. Some of these fairs are held monthly. The holding of these fairs at times when cholera is prevalent greatly facilitates the spread of the disease. The Deputy Sanitary Commissioner visited the most seriously affected areas; visiting Sehwan town in August 1910 when a serious outbreak was anticipated owing to a large annual fair being held there on the 25th to 27th of that month. Cholera being prevalent at Bubak, Bhan and several other places in the neighbourhood of Sehwan, arrangements were made with regard to general cleanliness and the permanganating of wells, and huts were erected to accommodate any cases that might occur. The erection of the huts gave rise to a rumour that quarantining would be enforced with the result that the influx of pilgrims was very much less than in other years. Altogether 42 cases and 29 deaths were reported from Sehwan town. Printed sheets were freely distributed to all local officials of places affected, giving instructions chiefly with reference to—

(*a*) General sanitation.

(*b*) Strict watch on drinking water supplies.

(*c*) Frequent treatment of wells with Potassium permanganate.

(*d*) Segregation of patients and disinfection of their belongings."

SMALL-POX.

Deaths from small-pox.

36. During the year under report the recorded deaths under this heading numbered 4,600, of which 2,374 were males and 2,226 females, as compared with 5,019 in 1909 and 5,491, the decennial mean.

The number of deaths registered from small-pox since 1899 is as follows:—

Year.	Number of deaths from small-pox.	Year.	Number of deaths from small-pox.
1899	1,946	1905	16,985
1900	9,885	1906	4,063
1901	5,340	1907	1,862
1902	2,189	1908	2,526
1903	2,752	1909	5,019
1904	4,289	1910	4,600
Total ...	26,401	Total ...	35,055
Mean ...	4,400	Mean ...	5,842

Deaths by Registration Districts and Collectorates.

37. Deaths from small-pox by months and Collectorates are shown in Annual Form No. VIII.

Excepting Dhárwár, which enjoyed complete immunity, all the Collectorates in the Presidency were more or less affected. The Collectorates of Kolába, Sholápur, Kánara and Hyderabad suffered most. The number of Registration Circles affected rose from 165 or 57 per cent. to 184 or 64 per cent., while the number of affected towns and villages fell from 1,079 in 1909 to 884 in the year under report.

The ratio of small-pox mortality per 1,000 of population for the Presidency was 0·25 against 0·27 in the previous year and 0·33, the five years' mean.

In Bombay City the mortality was more than double the previous year's total; while severe outbreaks were experienced in the towns of Mahád (1·94), Sholápur (4·18), Kárwár (5·13), Godhra (2·87) and Hyderabad (3·41). Commenting on the outbreak in Sholápur City the Deputy Sanitary Commissioner, Central Registration District, states :—

"The severity and wide dissemination of the epidemic was no doubt indirectly due to the extreme laxity in the registration of births which existed up to the middle of 1909, whereby the vaccinator had no reliable information to guide him as to the number of children available for vaccination. Hence a very large proportion of the infant population escaped his attention altogether, and when once the disease was introduced it spread with lightening rapidity. The mortality being over 50 per cent. of the attacks, which shows that the majority of those who contracted the disease had never been vaccinated."

The Deputy Sanitary Commissioner, Sind Registration District, remarks :—

"The disease was chiefly confined to Hyderabad District where 479 or 63 per cent. of the total deaths from small-pox occurred. Hyderabad city itself, a place notoriously opposed to vaccination, accounts for 235 deaths or nearly one-third of the total for Sind. Shikárpur (Sukkur District), the next town in population to Hyderabad, and Sehwan, (in Larkhana), where also opposition to vaccination is strong, suffered severely. Compulsory vaccination for Hyderabad and Shikárpur is much to be desired.

The following figures will show at a glance the incidence of small-pox during the 5 years ending 1909 in the towns in which there is compulsory vaccination and in those in which the Act is not applied :—

Name of Town.	Population.	Mean mortality from small-pox during 5 years ending 1909.	Ratio per mille of population.	
Sind total	3,206,081	490	0·15	
Karáchi	112,900	87	0·8	Under Act.
Sukkur	30,890	16	0·5	Under Act.
Larkána	14,543	2	0·1	Under Act.
Hyderabad	68,823	122	1·8	No Act.
Shikarpur	49,491	85	1·7	No Act.

Deaths by age.

38. Of the total number of deaths, 27 per cent. occurred among children under one year of age, 40 per cent. among children 1 to 10 years, and the remaining 33 per cent. among persons over 10 years of age.

Preventive measures adopted.

39. The preventive measures in force were those usually adopted by this Department, *viz.*, to obtain early information of an outbreak, to encourage vaccination and revaccination and to supplement the existing staff of vaccinators whenever it was found necessary.

Fever.

Deaths from fever.

40. The recorded deaths under the heading "Fever" numbered 263,523, of which 136,362 were males and 127,161 females, against 223,888 in the previous year and 286,476, the decennial mean.

The number of deaths registered from fever since 1899 is as follows :—

Year.	Number of deaths from fever.	Year.	Number of deaths from fever.
1899	228,438	1905	245,373
1900	543,319	1906	274,653
1901	291,951	1907	260,329
1902	270,845	1908	243,372
1903	259,704	1909	223,888
1904	251,330	1910	263,523
Total ...	1,845,587	Total ...	1,511,138
Mean ...	307,598	Mean ...	251,856

Deaths by Registration Districts and Collectorates.

41. Deaths from fever by months and Collectorates are set forth in Annual Form No. IX.

The fever death-rate for the Presidency rose from 12·11 in 1909 to 14·26 in the year under report against a decennial mean of 15·50. The increase in mortality, as compared with the figures of the preceding year, is shared by all the Collectorates in the Presidency proper, excepting Ahmedabad; while in Sind there was a reduction of nearly 3,000 deaths in the recorded mortality. Increase in East and West Khandesh, Nasik, Ahmednagar, Poona, Sholápur, Broach and Panch Mahálś was conspicuous, being 4·20, 6·94, 3·82, 4·33, 5·72, 8·69, 4·91 and 5·06 per mille of population respectively.

The highest ratio (25·55) was recorded in the Collectorate of Broach, followed by West Khandesh (22·56), Ahmedabad (22·44), Panch Mahálś (21·72), Larkhána (19·76) and Sholápur (19·36), while the lowest ratios were recorded in Belgaum (5·10), Dhárwár (7·63) and Kaira Collectorates (12·11).

By Registration Districts, Gujárát recorded the highest ratio of 18·51, Western 17·47, Sind 15·11, Central 14·21 and Southern 8·82.

Deaths by months.

42. Mortality from fever was fairly well distributed during the first five and the last six months of the year. June recorded the mimimum number of deaths (18,720) and during the latter half of the year the mortality was much in excess.

Malarial fevers.

43. In accordance with the orders of Government in Government Resolution, General Department, No. 3673, dated 5th August 1910, 27 Sub-Assistant Surgeons were deputed

to carry out anti-malarial operations in certain parts of the selected districts as detailed below :—

Number of Sub-Assistant Surgeons.	Name of táluka.	Name of district.	Number of persons treated.
1	Nasirabad	Larkhána	1,400
1	Mehar	Do.	
1	Pano Akil	Sukkur	.....
1	Ghatki	Do.	.....
1	Badin	Hyderabad	1,242
1	Dholka	Ahmedabad	1,314
1	Matar	Kaira	.....
1	Halol	Panch Máhals	4,255
1	Mandvi	Surat	2,115
1	Shahapur	Thána	.....
2	Nawápur	West Khándesh	3,050
2	Taloda (Akrani)	Do.	184
1	Nandurbár (West) ...	Do.	393
1	Pimpalner	Do.	742
2	Bárámati	Poona	714
1	Ghoda	Do.	3,071
1	Paud	Do.	3,581
1	Haveli	Do.	240
1	Khánápur	Belgaum	789
1	Hirekerur	Dhárwár	.....
1	Kalghatgi	Do.	.....
1	Below Ghát Tálukas ...	Karwár	.....
2	Above Ghát Tálukas ...	Do.	.....

These officers generally worked during the last four months of the year, and visited every village in their charge at least once a month. They treated cases of malarial fevers and enlarged spleen, together with other cases of most common ailments. They also visited schools and examined children for spleen enlargement.

Regarding these measures the Civil Surgeon, Hyderabad, reports :—

"The Dispensary at Badin reports a smaller number of admissions for malaria this year owing to this. Considerable benefit has undoubtedly resulted from this deputation of a Sub-Assistant Surgeon on malaria duty, though it is difficult to gauge the amount of benefit, and no doubt the measure will be repeated in future."

The Civil Surgeon, Larkhána, reports :—

"According to public opinion and the statistics of the previous years, the prevalence of malaria was less in these two tálukas, and this is chiefly due to the early steps taken to combat the disease and to the inducement which was offered to the ignorant public by the officers on duty."

The Civil Surgeon, Ahmedabad, reports :—

"In subsequent years earlier warnings of the visits of Sub-Assistant Surgeon might be given to the villagers. The Talati was evidently of very little use as he lived during the rains at Head-quarters. The Mukhi rendered as much service as he could, but little help is expected from a man of the Mukhi's education and experience.

"Women :—The measures for distributing quinine were evidently not regarded favourably by the women, as relatively few were treated when compared to men.

"A great number of childern being out in the fields were not available for treament."

The Civil Surgeon, Dhulia, reports :—

"Owing to the ignorance and backward condition of the inhabitants, only a moderate amount of success was obtained."

The Civil Surgeon, Belgaum, reports :—

"The results obtained do not appear to me to be very satisfactory and the Sub-Assistant Surgeon has been removed from the duty."

As regards the quantity of quinine actually used by the people, there is no information available in this office. The most definite information comes from Larkhána, the Civil Surgeon of which reports :—

"The total quantity of quinine sulphas consumed during the season was 84 lbs. in the whole District. Out of which 39 lbs. were purchased by the Local Board at a cost of about Rs. 440 from the Hyderabad Central Jail. This quantity was distributed in all the 10 Tálukas among Zamindars and the people. 22 lbs. of quinine sulphas were used by the Dispensary officers of the District. About 10 lbs. were consumed in the Civil Hospital, Larkhána."

About 24 lbs. of quinine were distributed by the Sub-Assistant Surgeons on special Malaria duty in West Khándesh.

Of other anti-malarial measures, minor works of draining or filling in hollows, the use of kerosine oil and pesterine, the removal of weeds and rank vegetation from the surface of streams and tanks combined with general cleanliness and sanitation were carried out in some of the municipal and dispensary towns.

When the statistics of fever deaths for previous years, now being compiled in the offices of the Deputy Sanitary Commissioners, are completed, more light will perhaps be thrown on the causes and prevalence of malarial fevers.

Rainfall.

44. *January.*—A few cents only were recorded at a few stations in Gujarát, Gujarát States and Káthiáwár.

February.—No rainfall was recorded at any of the recording stations.

March.—Rain in light to moderate showers fell in almost the whole of Belgaum and Dhárwár, and at a few places in Bijápur, Karnátak and in the Southern Marátha States. It was also fairly general in Kánara.

April.—Slight rain in scattered showers was recorded principally in Dhárwár and in north Gujarát.

May.—Rain in light to fairly heavy showers fell in parts of the south Deccan, Karnátak and Southern Marátha Country States. The incidence was lenient in Kánara and the Konkan.

June.—The south-west monsoon opened on the west coast early in the first week of this month. The current was feeble. It however strengthened in the third week and penetrated finely into the interior, occasioning heavy and continuous rain to the end of the month. In the Deccan, rain was generally far in excess of the average, being in some places double and treble the usual fall. In tracts near the Sahyádris rain fell almost continuously. In Karnátak, the total fall was in defect of the average, the deficiency being particularly marked in the eastern tracts. In the Konkan, except at a few places in Kánara and Thána, the total rainfall was far in excess of the average. In Gujarát, the rainfall was much above the average.

July.—In the Deccan, the total rainfall exceeded the average in almost the whole of West Khándesh, Sholápur, Nagar and in the eastern portions of Poona and Sátára. In Karnátak, the rainfall was above the average in the whole of Bijápur and Dhárwár and at three stations in Belgaum. In Gujarát, except in Broach and the Panch Maháls, the total rainfall was generally in defect of the average.

August.—In the Deccan, Karnátak and Gujarát the total rainfall exceeded the average.

September.—In the Deccan, except in places in West and East Khándesh and in the western portion of Násik, Poona and Sátára, the total fall was above the average. In Karnátak, the fall was generally in excess of the average except in places in western Dhárwár. In the Konkan the total rainfall was above the average. In Gujarát, the aggregate fall was much in defect of the average.

October.—The total rainfall was above the average in the Presidency proper, except in Gujarát.

November.—The total rainfall was in excess of the average.

December.—Practically there was no rain.

In the Presidency the rainfall during the S. W. Monsoon was fairly abundant, and well distributed. The prices of food-grains were normal over the whole of the Presidency during the year under report.

PLAGUE.

Deaths from plague.

45. During the year 1910, 25,043 deaths (13,273 males and 11,770 females) were registered as due to plague, against 24,319 in the previous year, and a decennial mean of 111,959.

The number of recorded deaths from plague since 1899 is given below :—

Year.	Number of deaths from plague.	Year.	Number of deaths from plague.
1899	96,596	1905	71,363
1900	33,196	1906	51,525
1901	128,259	1907	93,609
1902	184,752	1908	27,345
1903	281,269	1909	24,319
1904	223,957	1910	25,043
Total ...	948,029	Total ...	298,204
Mean ...	158,005	Mean ...	48,867

It will be seen from the above that the low plague mortality recorded during the preceding two years has been maintained in the year under report.

Deaths by Registration Districts and Collectorates.

46. The ratio for the whole Presidency was 1·35 against 1·32 in the previous year and 2·90, the mean of the previous five years. Though the total for the Presidency remained practically unchanged, great variations are observed in the case of individual Collectorates :—*e. g.*, East Khándesh reported 3,223 deaths against 912 in 1909 ; Násik 714 against 54 ; Dhárwár 3,741 against 1,405 ; and Surat 1,054 against 365. On the other hand, Poona reported 175 deaths against 1,831 ; Sátára 3,722 against 5,245 and Bijápur 203 against 1,103. The fall in the plague mortality, in the City of Bombay, has been unbroken since 1903 :—

	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
City of Bombay ...	20,751	13,504	14,171	10,802	6,379	5,348	5,186	3,641

Of 289 registration circles, 153 were affected against 141 in the previous year, while the number of towns and villages affected rose from 819 to 966 in the year under report.

Among towns Nasirabad (22·75), Hubli (22·50), Karáchi (14·47), Belgaum (12·77), Nadiád (11·58) and Wái (10·29) were the most affected.

Deaths by months.

47. The rise in plague mortality noticed in the last quarter of the preceding year continued in the year under report up to the end of March ; the lowest number of deaths was recorded as usual in the months of May and June ; then followed the usual rise which continued to the end of the year, the number of deaths registered in December being 3,498.

Plague preventive measures.

48. The chief operations directed towards the prevention of plague were inoculation, evacuation and rat destruction.

Full reports on this subject have been submitted to Government by the Sanitary Commissioner under Nos. 836-P. and 244-P., dated 2nd August 1910 and 3rd March 1911, respectively.

Inoculation.

49. During the year under report 30,635 persons, of whom 25,132 belonged to British District and 5,503 to Native States, were inoculated against 26,085 in the previous year. By Districts, 5,218 operations were performed in Sátára District; 3,384 in Karáchi; 2,589 in Dhárwár; 2,354 in Belgaum; 1,005 in Ahmednagar; 961 in Thána; 952 in Ahmedabad; 898 in Surat and 707 in the Poona District. While the number of inoculations performed in other districts was less than 200. As regards Native States the majority of operations were performed in Mahi Kántha (777), Dharampur (1,027) and Kolhápur and the Southern Maratha Country States (3,576).

The majority of the operations noted above were performed in the chief plague infected towns. Thus all operations in Karáchi, Belgaum and Ahmednagar Districts were in the Towns of Karáchi, Belgaum and Ahmednagar respectively; 2,552 were in Hubli; 1,010 in Sátára; 1,756 in Wái; 1,191 in Mahábaleshwar; 961 in Thána and 652 in the City of Poona.

All the operations performed in Thána and Ratnágiri Collectorates were among the prison population; while those in Ahmednagar and Belgaum were among the military population.

The number of operations performed in Bombay City amounted to 6,661 against 4,546 in the previous year.

Deaths among the inoculated.

50. Among the inoculated 26 cases of plague were reported, of which 15 proved fatal as compared with 35 cases and 20 deaths in the preceding year. Of the total, 13 cases and 8 deaths occurred in Sátára Collectorate; 4 cases with 4 deaths in Dhárwár; 4 cases with 2 deaths in Ahmedabad; 2 cases with 1 death in Karáchi; 2 cases in Surat; 1 in Kaira Collectorate and 1 in Sávantwádi State. The last four cases recovered.

Among the fatal cases 7 might reasonably be considered as being in the incubation stage of the disease at the time of inoculation; and the remainder followed upon an attack of plague which supervened after periods varying from 14 days to 3 months from the date of inoculation. In two instances, in which plague developed 3 to 4 days after inoculation, recovery was reported.

Dysentery and Diarrhœa.

Deaths from dysentery and diarrhœa.

51. During the year under report 46,643 deaths (of which 24,616 were males and 22,027 females) were ascribed to these causes as compared with 35,039 in 1909 and a decennial mean of 70,078.

The number of deaths from dysentery and diarrhœa since 1899 is as follows:—

Year.	Number of deaths from dysentery and diarrhœa.	Year.	Number of deaths from dysentery and diarrhœa.
1899	74,736	1905	55,488
1900	218,243	1906	61,736
1901	60,198	1907	53,708
1902	53,682	1908	40,781
1903	55,443	1909	35,039
1904	61,470	1910	46,643
Total ...	528,772	Total ...	293,395
Mean ...	88,129	Mean ...	48,899

Deaths by Registration Districts and Collectorates.

52. Deaths from these causes by months and Collectorates are shown in Annual Form No. X.

The death rate per mille for the whole Presidency amounted to 2·52 against 1·90 in the previous year. The recorded mortality from dysentery and diarrhœa in almost all the Collectorates was higher than that of the previous year. The increase was most conspicuous in the Collectorates of Ahmednagar, Poona and Sholápur; and the Deputy Sanitary Commissioner, Central Registration District, remarks:—

"The increase last year is only what might have been expected when there was such a widespread epidemic of cholera; and I should ascribe its abnormal prevalence this year to the heavy and long continued rains: people working in the fields became chilled, and as a consequence any little dietetic indiscretion, such as an undue indulgence in melons, or what might under ordinary circumstances prove only a passing attack of indigestion, assumes serious proportions, often with fatal results."

Deaths by months.

53. As usual these diseases were most prevalent in the rainy months of July, August and September.

Injuries.

Deaths from injuries.

54. The returns under this head show 6,885 deaths (of which 3,871 were among males and 3,014 among females) against 7,029 in the previous year and 7,013, the mean of preceding ten years.

The number of deaths registered under the heading Injuries since 1899 is given in the following table:—

Year.	Number of deaths from injuries.	Year.	Number of deaths from injuries.
1899	7,102	1905	6,586
1900	8,224	1906	6,830
1901	7,092	1907	6,799
1902	7,434	1908	7,109
1903	6,693	1909	7,029
1904	6,333	1910	6,885
Total ...	42,878	Total ...	41,238
Mean ...	7,146	Mean ...	6,873

Deaths from injuries in 1909 and 1910 by sexes.

55. The following table shows the deaths by sexes, arranged under the various heads classed as Injuries and compared with those of the previous year:—

Causes.	1909.			1910.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,260	1,644	2,904	1,169	1,584	2,753
Poisoning	83	48	131	64	27	91
Hanging	114	70	184	116	58	174
Wounding	584	300	884	618	314	932
Wild beasts	31	15	46	33	3	36
Snake-bite	890	516	1,406	887	485	1,372
Railway	55	10	65	60	6	66
Other causes	924	485	1,409	924	537	1,461
Total ...	3,941	3,088	7,029	3,871	3,014	6,885

Deaths from snake-bite.

56. Of the 1,372 deaths due to snake-bite 243 were reported from the Collectorate of Ratnágiri, followed by Ahmedabad (100), Hyderabad (96), Thána (93), Kaira (78) and Thar and Párkar (75); while the lowest (3) was reported from the City of Bombay, Upper Sind Frontier (9) and Kánara (15).

Of the total mortality from injuries 40 per cent. was due to drowning nearly 50 per cent. of the cases were accidents at wells; and more than 69 per cent. of these accidents happened to females.

Until some action is taken upon the constantly repeated advice of the Sanitary Department regarding the proper protection of wells, tanks, etc., this entirely unnecessary mortality is likely to continue.

Respiratory Diseases.

Deaths from respiratory diseases.

57. There were 59,880 deaths (31,297 males and 28,583 females) recorded under the heading respiratory diseases against 53,433 in 1909 and 56,265, the mean of previous five years.

The number of deaths registered from respiratory diseases since 1902 is given below:—

Year.	Number of deaths from respiratory diseases.	Year.	Number of deaths from respiratory diseases.
1902	59,379	1907	58,068
1903	59,349	1908	54,671
1904	59,579	1909	53,433
1905	54,537	1910	59,880
1906	60,615		
Total ...	293,459	Total ...	226,052
Mean ...	58,692	Mean ...	56,513

Deaths by Registration Districts and Collectorates.

58. Deaths from these diseases, by months and Collectorates, are given in Annual Form No. XI.

The respiratory disease death ratio per mille for the whole Presidency was 3·24 against 2·89 in the previous year, and 3·04, the mean of previous five years. As compared to the rest of the Presidency, the Districts in Gujárat, excepting Panch Maháls, recorded very high ratios from these causes, while Sind recorded the lowest mortality under this heading.

Deaths from respiratory diseases, by Districts and Towns, are shown in Annual Form No. VI, column 9. The death-rate in rural areas amounted to 2·44 as contrasted with 7·83, the urban ratio. The highest ratios were recorded against Ahmedabad (16·89), Kaira (15·13), Nadiád (14·19), Gogha (14·17), Broach (11·22), Bulsár (11·05), Borsad (11·00) and the City of Bombay (10·88); while the lowest were registered in Dohad (·14), Larkhána (·28) and Kárwár (·83).

Deaths by months.

59. The monthly distribution of deaths from these causes was fairly equal throughout the year.

Other Causes.

Deaths from other causes.

60. The number of deaths recorded under the heading Other Causes amounted to 149,735 (of which 76,770 were among males and 72,965 among females) as compared with 128,495 in 1909 and 159,847, the decennial mean.

The number of deaths registered under this head since 1899 is as follows:—

Year.	Number of deaths from other causes.	Year.	Number of deaths from other causes.
1899	254,872	1905	132,666
1900	342,027	1906	142,478
1901	179,694	1907	124,575
1902	134,952	1908	124,275
1903	144,510	1909	128,495
1904	144,800	1910	149,735
Total ...	1,200,855	Total ...	802,224
Mean ...	200,142	Mean ...	133,704

Deaths by Registration Districts and Collectorates.

61. The ratio per 1,000 of population for the Presidency amounted to 8·10 against 6·95 in the previous year. But in the case of individual Collectorates the ratio varied from ·39 in the Upper Sind Frontier to 12·83 in the City of Bombay. High rates were recorded in the Collectorates of the Southern and Western Registration Districts, as compared with the rest of the Presidency. The percentage of deaths recorded from other causes to total deaths, for the Presidency, was 26·74, with percentages varying from 43·87 in the Southern Registration District to 8·12 in Sind.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

62. This section has been omitted from this report and appears separately.

SECTION VIII.

SANITARY WORKS—MILITARY.

63. No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

64. During the year ending 31st March 1910, there were 157 Municipalities in the mofussil, with a population of 2,351,829 souls.

The Municipality of Bhadgaon was abolished.

The total income of these Municipalities amounted to Rs. 92,02,824-11-0, of which sum Rs. 25,18,218-12-9 was expended on Public Health improvements. The incidence of taxation and income per head of population have increased from Rs. 1-15-5 to Rs. 2-2-0 and from Rs. 3-0-6 to Rs. 3-6-11 respectively. As in the previous years Karáchi has the highest incidence of taxation (Rs. 8-7-7) per head and Ashta the lowest (Re. 0-1-10).

Two notified areas have been added during the year—Málad and Borivli. Thus there were 12 notified areas, with an income of Rs. 54,782; of which a sum of Rs. 25,104 was expended, leaving a balance of Rs. 29,678. Khánápur was constituted a notified area during the current year.

It is also proposed to constitute the Municipalities at Nadiád, Bándra, Jalgaon, Dhulia, Yeola, Bársi, Bijápur, Bágalkot and Gadag-Bettigiri as City Municipalities with effect from 1st April 1911.

There was a rise of 6,600 in the total recorded population within Municipal areas. In the Central Division there was an increase of 4,000 in the Municipal population, owing to the inclusion, within the limits of the Lonávla Municipality, of Khandála and the surrounding villages.

The expenditure under "Public Health," which in the previous year had shown an increase of Rs. 6,14,000 under the stimulus of Government grants, was increased by Rs. 1,47,000; and many improvements in water-supply and drainage are being carried out. Details of these works are given in Appendix I, and it will be seen that in 34 towns in the Presidency such works are either in progress or under investigation.

The high ratio of mortality prevailing in Aden and Shaikh Othaman is stated to be largely due to defective sanitation and to bad water-supply. The Political Resident, Aden, has submitted a scheme for the supply of water to Aden. Government have sanctioned Rs. 50,000 to cover the cost of the preliminary investigations, including the preparation of the detailed plans and estimates.

65. The number of District and Táluka Local Boards remained unchanged. Apart from some slight territorial adjustments between the Districts of Sholápur, Belgaum and Sátára, the area and population of the Local Boards remained unaltered. The income of these Boards during the year ending 31st of March 1910 amounted to Rs. 68,78,715-8-8; and out of this sum Rs. 4,22,849-9-5 were expended on water-supplies and drainage, while a sum of Rs. 31,067-8-0 was expended for other works of improvements. The expenditure of the Boards amounted to 69⅓ lákhs against 67 lákhs in the preceding year. There was a notable increase in the Medical expenditure which is ascribed to the grant of allowances to itinerant Vaccinators, the equipment of several Dispensaries and large grants to Sanitary Boards. In Sind special efforts were made during the malaria season to combat the ravages of fever.

During the year 1910, Government sanctioned certain allotments from the Provincial Funds as well as from the grant of Rs. 7 lákhs made by the Government of India. The Provincial grants are made for carrying out improvements exclusively to the village water-supply; while the allotment made by the Government of India is to be devoted to the improvements of communications, water-supplies, village sanitation and the proper equipment and maintenance of dispensaries, roads and bridges.

The following statement shows the distribution of these allotments and the expenditure met from them :—

Divisions.	Districts.	Grants made from Provincial Funds.	Grants made from the allotments sanctioned by the Government of India.	Expenditure.	Remarks made by District Officers.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	
Northern Division.	Ahmedabad	5,000 0 0	40,000 0 0	Not available.	
	Kaira	1,500 0 0	26,000 0 0	Do.	
	Panch Maháls	1,500 0 0	30,000 0 0	.....	The District Local Boards have jointly to provide for and complete water works costing in all three times the Government grants. No detailed account is kept.
	Broach	5,000 0 0	30,000 0 0	Not available.	
	Surat	2,000 0 0	26,000 0 0	Do.	
	Thána	5,000 0 0	30,000 0 0	Do.	
Central Division	East Khándesh	2,000 0 0	35,000 0 0	63,722 0 0	Details of expenditure met from the grants cannot be given.
	West Khándesh ...	4,000 0 0	30,000 0 0	10,960 0 0	This amount was expended by the District Local Board to the end of November 1910.
	Násik	3,000 0 0	27,000 0 0	6,527 19 8	The remaining balance will be expended till the end of March 1911.
	Ahmednagar	3,000 0 0	30,000 0 0	56,054 3 7	This amount has been spent by the District Local Board on improvements of communications.
	Poona	4,000 0 0	28,000 0 0	8,853 12 1	It is not possible to give particulars of expenditure.
	Sátára	2,000 0 0	33,000 0 0	.....	The amount will be expended probably by the end of March 1911.
	Sholápur	2,000 0 0	30,000 0 0	28,399 0 3	The grants were credited to the District Local Board's General Account.
Southern Division.	Belgaum	2,500 0 0	31,000 0 0	31,000 0 0	The amount was expended on construction and improvements to Roads.
	Bijápur	1,500 0 0	30,000 0 0	57,705 0 0	The expenditure has been in excess of the grants.
	Dhárwár	2,000 0 0	40,000 0 0	1,55,294 0 0	This amount has been provided for expenditure during the current year.
	Kánara	1,000 0 0	15,000 0 0	19,094 0 0	No separate account of the grants is kept.
	Kolába	1,500 0 0	20,000 0 0	86,150 0 0	The District Local Board has budgetted for this expenditure during the year.
	Ratnágiri	1,500 0 0	20,000 0 0	40,665 0 0	This is the amount of expenditure sanctioned by the District Local Board during the current year.
Sind ...	Karáchi	759 0 0	19,000 0 0	20,109 0 0	The excess expenditure was met from the General Funds.
	Hyderabad	3,767 0 0	37,000 0 0	21,945 6 5	
	Sukkur	1,856 0 0	21,000 0 0	24,835 0 0	
	Lárkána	1,181 0 0	36,000 0 0	49,991 7 6	
	Thar and Párkar ...	1,823 8 0	23,000 0 0	14,142 14 8	
	Upper Sind Frontier ...	507 0 0	18,000 0 0	8,693 0 0	

As to the expenditure met from these grants no precise information is forthcoming under the above-mentioned heads, as the District Local Boards have incorporated these grants in their General Receipts, and no separate account of them is kept. In the Southern and Central Divisions 100 new wells

were reported to have been constructed, and 89 old wells repaired and 46 tanks completed; while Rs. 1,55,000 was spent on similar objects in the Northern Division; and Rs. 4,23,000 in Sind.

66. The Bombay Village Sanitation Act, 1889, was in force in 300 villages against 279 up to the end of last year.

The following statement shows the financial position of the Sanitary Committees in various Districts during the year under report :—

Districts.	Number of Sanitary Committees.	Income including balances.	Expenditure.	Closing balance.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
East Khándesh	8	15,801 10 11	9,450 8 7	6,351 2 4
West Khándesh	6	8,469 0 11	3,168 9 8	5,300 7 3
Násik	11	4,903 8 7	4,557 4 10	346 3 9
Thána	3	3,045 12 11	1,877 2 9	1,168 10 2
Kolába	10	1,995 5 1	1,697 7 0	297 14 1
Ahmednagar	13	11,657 12 1	6,452 2 9	5,205 9 4
Poona	2	.....	.....	.....
Sholápur	2	1,161 3 6	184 0 0	977 3 6
Sátára	9	3,154 1 1	1,953 6 1	1,200 11 0
Ratnágiri	2	2,444 5 5	1,690 5 6	753 15 11
Belgaum	6	5,673 13 3	4,067 0 5	1,606 12 10
Dhárwár	18	5,187 7 2	3,445 13 11	1,741 9 3
Bijápur	37	18,468 14 0	5,236 13 0	13,232 1 0
Kánara	*Nil.*	.....	.....	.....
Surat	7	9,214 6 7	5,995 11 9	3,218 10 10
Broach	16	15,829 5 3	4,430 4 4	11,399 0 11
Kaira	17	9,528 0 0	4,757 0 0	4,771 0 0
Panch Maháls	4	3,593 9 8	2,766 12 11	826 12 9
Ahmedabad	7	4,970 10 8	1,731 10 3	3,239 0 5
Karáchi	20	.....	.....	.....
Hyderabad	31	17,500 0 0	15,337 0 0	2,163 0 0
Thar and Párkar	20	18,310 0 0	8,433 0 0	9,877 0 0
Lárkána	38	14,487 7 2	8,443 15 2	6,043 8 0
Sukkur	12	8,362 1 5	4,998 13 7	3,363 3 10
Upper Sind Frontier	11	3,174 0 1	2,351 13 2	822 2 11

With a view to furnishing the information required by Government Memorandum No. 7077, dated 15th December 1908, a reference was made to all the Collectors asking for a detailed account of the work of the Village Sanitary Boards and Committees in their Districts. These Committees are on the whole unpopular and the contributions are only voluntary in name.

None of the Revenue Officers expressed an opinion on the working of these Boards and Committees; but Deputy Sanitary Commissioners are of opinion that very little useful sanitary work is done by them and that there is a want of supervision of the methods in which these Committees carry out the duties entrusted to them. The incomes of Sanitary Committees amounted to Rs. 1,86,931-7-9 while the closing balances totalled Rs. 83,905-12-1. This money is collected largely from the people and should be freely spent for the benefit of the people.

67. The number of selected villages in which the "Village Sanitary Inspection Book" has been kept stands at 1,700 during the year under report.

In accordance with the ruling of Government Resolution, General Department, No. 3152, dated 18th June 1909, there has been a reduction in the number of selected villages. During the year 322 entries have been made in these books by officers of the Sanitary Department.

In accordance with the ruling in Government Resolution, General Department, No. 5454, dated 4th November 1910, such of these books as have been withdrawn from villages are being forwarded by the Revenue Authorities to the various Deputy Sanitary Commissioners for record.

The Deputy Sanitary Commissioner, Gujarát Registration District, states that "In those villages visited, in which the Village Sanitary Book was in force, the same general neglect of elementary cleanliness was noted and in no cases had action been taken on recommendations (recorded in the Village Sanitary Books) made by the Sanitary Department."

Other Deputy Sanitary Commissioners note the want of attention to recommendations entered in the Village Sanitary Books.

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

68. The office of the Sanitary Commissioner was held by Lieutenant-Colonel T. E. Dyson, I. M. S., from 1st January 1910 to 31st December 1910.

69. During the year the following Collectorates were visited:—Poona, Karáchi, Hyderabad, Kaira, Ahmedabad, Belgaum and Sátára.

The Sanitary Commissioner also attended the Malaria Conference held at Simla in November 1910.

70. The tours of the Deputy Sanitary Commissioners are described in the Report on Vaccination.

71. This Report was prepared by Lieutenant-Colonel Arnim, Deputy Sanitary Commissioner, Gujarát Registration District, during the absence of the Sanitary Commissioner on deputation.

T. E. DYSON, M.B., D.P.H.,
Lieut.-Colonel, I. M. S.,
Sanitary Commissoner.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE BOMBAY PRESIDENCY FOR THE YEAR 1910.

The Sanitary Board was constituted as under during the year :—

President.

The Honourable Surgeon-General H. W. Stevenson, I. M. S., J. P., Surgeon-General with the Government of Bombay.

Members.

The Honourable Mr. W. T. Morison, C.S.I., I. C S., Commissioner, Central Division, from 1st January 1910 to 18th May 1910.

The Honourable Mr. G. S. Curtis, I. C. S., Commissioner, Central Division, from 19th May 1910 to end of the year.

A. Hill, Esq., C.I.E., F.C.H., M.I.C.E., J. P., F.U.B., Chief Engineer, Public Works Department, from 1st January 1910 to 28th February 1910.

The Honourable Mr. W. L. S. L. Cameron, C.S.I., J. P., Chief Engineer, Public Works Department, from 1st March 1910 to end of the year.

Lieutenant-Colonel T. E. Dyson, M.B., C.M., D.P.H, I. M. S., Sanitary Commissioner for the Government of Bombay.

H. V. R. Kemball, Esq., C.E., F.U.B., Sanitary Engineer and Secretary.

2. During the year under report, the Sanitary Board held two meetings on 5th August and 29th September 1910 and among other matters considered proposals for the Improvements of the Igatpuri Water-supply, Sewage disposal of the Head Quarter Police Lines at Bhamburda, Revised schemes for the Poona Water-supply and Drainage, Drainage for the town of Násik, and Thána Drainage and Water-supply.

3. Works in progress included the following :—

WATER-SUPPLY.

Northern Division.

(1) *Ahmedabad.*—Repairs were commenced to the three pumping engines, replacements having been ordered from Messrs. Glenfield and Kennedy.

With the sanction of Government, the Committee of Management have raised a loan of Rs. 3,50,000 for extending the head works and laying pipes of larger diameter with a view of meeting existing requirements in the areas at present suffering from a deficient supply. The expenditure during the year was Rs. 8,075.

Central Division.

(1) *Pandharpur.*—During the year under report the infiltration wells and the main connecting them with the jack well were completed.

Considerable progress was made in the construction of the engine and boiler house.

The distribution system was completed.

The erection of the pumping machinery was undertaken in December, and it is expected that the plant will be in working order well before the rains.

The expenditure during the year amounted to Rs. 2,51,714-12-10.

(2) *Násik.*—Owing to unforeseen difficulties the sinking of the two infiltration wells has been delayed. It is hoped, however, that they will be sunk to the full depth before the break of the monsoon.

The work on the service reservoir is in an advanced stage, the arches for the roof being completed.

The foundations for the weir at Anandwalli were commenced in December and will be made secure before the break of the rains.

The expenditure during the year under report was Rs. 1,03,442.

(3) *Sholápur.*—Government were pleased to sanction the project for improvements to the existing water-supply, the estimate for which amounted to Rs. 3,16,427.

This estimate provides for three additional settling tanks, a jack well, an additional main 15″ in diameter and one new engine. An additional service reservoir is provided to improve the distribution system.

The Municipality have asked Government for a loan of Rs. 3,00,000 and as soon as sanction is received the work will be taken in hand.

(4) *Shirpur.*—During the year under report, repairs to wells, bathing ghauts and old drains were taken in hand. The expenditure incurred under these heads amounted to Rs. 4,238-7-0.

Southern Division.

(1) *Dhárwár.*—At the close of the year the dam of the impounding reservoir, the waste weir, and the outlet tower were practically completed.

The engines and boilers were erected during the year and were ready for their tests.

With the exception of a few finishing touches, this work was ready to be handed over to the Municipality.

The expenditure during the year was Rs. 1,87,350.

(2) *Bijápur.*—As only the upper ends of the puddle trench were completed and filled in before the rains, a silt trap formed of three trunks was thrown across the nalla ends of the trench which prevented erosion and served its purpose admirably.

By the end of the year, practically the whole of the puddle trench was filled in and the dam raised in terraces to a considerable height throughout its entire length.

The outlet tunnel under the dam was completed and the excavation for the waste weir was well in hand.

The foundations for the High Service Reservoir were completed. The expenditure during the year amounted to Rs. 75,114.

(3) *Hubli.*—The third stage of this work was sanctioned by Government late in the year.

The scheme provides for the construction of a supplementary tank from which the existing tank will receive an extra supply.

The total estimated cost of the complete project is Rs. 5,48,189, of which the Madras and Southern Maratha Railway have agreed to pay Rs. 1,50,000 on condition that the Municipality supply the railway reservoir with water sufficient for their daily requirements.

Preliminary work such as constructing huts for the carrying out of the building operations was taken in hand. The expenditure during the year was Rs. 57-8-0.

(4) *Ratnágiri.*—During the year Government were pleased to sanction the scheme for a water-supply to the Lunatic Asylum and Town of Ratnágiri, the estimate for which amounted to Rs. 46,493.

Considerable progress was made with the work, the tunnel and nearly half of the Head Works having been completed during the year. The distribution pipes were received from England and about one-third of the total length of main was laid.

The expenditure amounted to Rs. 32,137.

(5) *Roha Ashtami.*—This scheme was sanctioned by Government during the year under report.

The foundations for the service and settling tanks were completed. The expenditure incurred was Rs. 177-4-1.

(6) *Sangli.*—Owing to the bad nature of the foundations, the original project was abandoned and a new scheme, amounting to Rs. 2,60,927, with the location of the Head Works on the left bank of the river, was prepared and sanctioned by Government.

Owing to the late start and a heavy flood during the month of May, the work was closed down for the season, and a fresh start for opening up the river bed made in November.

Considerable progress was made with the infiltration galleries, pump well and high level reservoir foundations. The total expenditure during the year amounted to Rs. 61,478.

Sind.

(1) *Hyderabad.*—Revised plans and estimates amounting to Rs. 3,21,000 were prepared against the original estimate of Rs. 2,86,500.

The new pumping engine and boiler were fitted up and given a preliminary trial when they were found to work satisfactorily.

The earthen Settling Tanks at Gidu will be completed as soon as the materials expected from England are received.

The work of widening the existing masonry conduit from Gidu to Hyderabad will probably be finished in May.

In the ensuing year the existing masonry service reservoir is to be lined with Callendrite, which, it is hoped, will prove successful in stopping the leakage which has been the cause of serious trouble for the past three years.

The expenditure during the year was Rs. 39,902.

(2) *Karáchi.*—An expenditure of Rs. 19,031 was incurred during the year against the revenue account in extending the town distribution system.

Government were pleased to approve of the plans and estimates amounting to Rs. 8,10,000 for extensions and improvements of the water-supply and permitted the Municipality to raise a loan for the purpose, of which Rs. 1,30,500 was raised during the year under report.

(3) *Jacobabad.*—Two wells, one of which was commenced in the previous year, were completed.

Owing to difficulties of finance a large scheme contemplated for water-supply was abandoned.

DRAINAGE.

Northern Division.

(1) *Ahmedabad.*—Further progress was made in extending the irrigation facilities of the sewage farm, some 2,500 feet of open masonry channels being constructed. The waste land has been partly brought under cultivation, and earthen distributary channels have been extended to the culturable area.

The Municipality raised a loan of Rs. 50,000 for enlarging the sewage farm. The expenditure during the year was Rs. 6,587.

Central Division.

(1) *Pandharpur.*—A sum of Rs. 6,004 was spent in further improving the river-side collecting drains and road-side gutters with a view to stop the pollution of the river frontage.

Southern Division.

(1) *Bijápur.*—A small expenditure of Rs. 535 was incurred in covering inside gutters and minor improvements.

Sind.

(1) *Hyderabad.*—A sum of Rs. 7,735 was spent during the year on the completion of the tram line and filling in Tank No. 1. New open surface drains were constructed in parts of the town where they were urgently required. In all, a sum of Rs. 16,020 was spent in improvements to drainage works.

(2) *Karácki.*—The drainage works were continued, and the expenditure during the year amounted to Rs. 1,21,083.

The laying of the gravitating sewers in the Rambaugh and Begari Khata, begun last year, was completed and the Serai and Railway premises connected up with the Ejector provided for the purpose.

The new Shone Ejector and necessary pipes for gravitating sewers, air and rising mains for the Machi Meani Quarter, were purchased at a cost of Rs. 40,889, and fair progress made in erecting and laying them.

To meet the demand for air caused by the extension of the drainage system and the consequent increase of the sewage discharge from three-quarters to one-and-a quarter million gallons a day, a new Air Compressor, capable of compressing 1,000 cubic feet per minute of free air to a pressure of 40 lbs. per square inch, was purchased and erected at a cost of Rs. 36,000. This compressor is in daily use and is doing excellent work.

(3) *Jacobabad.*—One open drain was constructed as an experimental measure at a total cost of Rs. 190-11-6. The ground, however, is so flat that it is doubtful if any gravity system of drainage will prove satisfactory.

4. Government were pleased to give during the year the following grants-in-aid for Sanitary Works in the Presidency.

Name of work.	Amount of grant.	Authority of Government Resolution.
	Rs.	
(1) Bhusával Town Improvement	20,820	Government Resolution, General Department, No. 1378 of 19th March 1910.
(2) Gogha Water-supply	1,767	Government Resolution, General Department, No. 1264 of 14th March 1910.
(3) Pandharpur Water-supply	75,000	Government Resolution, General Department, No. 1621 of 5th April 1910.
(4) Belgaum Water-supply and Drainage ...	1,000	Government Resolution, General Department, No. 1846 of 21st April 1910.
(5) Bijápur Water-supply	1,30,000	Government Resolution, General Department, No. 2487 of 25th May 1910.
(6) Ratnágiri Water-supply	16,750	Government Resolution, General Department, No. 2931 of 22nd June 1910.
(7) Násik Water-supply	1,20,000	Government Resolution, General Department, No. 3191 of 7th July 1910.
(8) Belgaum Sanitary Improvements ...	2,022	Government Resolution, General Department, No. 3830 of 12th August 1910.
(9) Dhárwár Water-supply...	4,336	Government Resolution, General Department, No. 4070 of 25th August 1910.
(10) Hubli Water-supply	48,189	Government Resolution, General Department, No. 4137 of 29th August 1910.
(11) Ahmedabad Sanitary Improvements ...	50,000	Government Resolution, General Department, No. 4205 of 1st September 1910.
(12) Aden Water-supply	20,000	Government Resolution, General Department, No. 4298 of 5th September 1910.
(13) Ratnágiri Water-supply	15,000	Government Resolution, General Department, No. 5578 of 9th November 1910.
(14) Poona Water-supply and Drainage ...	50,000	Government Resolution, General Department, No. 6254 of 14th December 1910.

5. The following projects for sanitary works were under investigation during the year :—

Northern Division.

(1) *Surat Drainage.*—The survey for a sewerage project was commenced at the end of the previous year and a rough project has been prepared.

(2) *Dholka Water-supply.*—A sub-artesian supply was tapped at a depth of 124 feet below the ground surface, and arrangements were being made to conduct a pumping test in order to ascertain the yield.

(3) *Kelva Máhim Water-supply.*—Further progress was made in ascertaining the line of flow of an underground spring with the Electric Water Finder kindly lent by the Agricultural Department. Test wells will be sunk during the coming year.

Central Division.

(1) *Poona Drainage and Water-supply.*—The plans and estimates for the revised scheme embracing two-thirds of the city at a cost of Rs. 17,42,023 were approved by Government and the commencement of construction ordered in October. Under the orders of Government a new Executive District, called the Poona Drainage and Water Supply District, was formed for carrying out the work. Owing to orders having been received late in the year, no construction work was started, but arrangements were made for the staff and materials, with a view of immediate commencement in the ensuing year.

(2) *Násik Drainage.*—The old intercepting drain constructed in the year 1896 was opened up and found to be defective.

A scheme for drainage for the whole town was worked up and has been submitted to the Sanitary Board for approval.

(3) *Ahmednagar Water Scheme.*—A project had been prepared for pumping water from a series of wells, which were to be connected, but on further consideration it was thought that a gravitation scheme would be more advantageous, and a new scheme is now under investigation.

(4) *Málegaon Water-supply.*—Surveys commenced during the previous year were completed and a rough project prepared. An abstract estimate of the cost has been sent to the Collector of Násik for the consideration of the Municipality regarding the financial aspect of the scheme.

(5) *Nandurbár Water-supply.*—Complete surveys were made during the year. Two proposals, one involving a tank on the Patalgánga river, and the other an infiltration gallery on the right bank of the Shivnad river, as the source of supply, have

been worked out. The irrigators are likely to oppose the latter scheme on account of the supply being drawn from the sub-strata of the Shivnad River.

(6) *Dhulia Water-supply.*—Surveys for increasing the storage capacity of the Dedargaon tank and for improving the water distribution system in the town of Dhulia were made and the projects are in hand.

(7) *Málegaon, Rander and Nandurbár Drainage.*—Surveys for drainage projects for these towns commenced at the end of the previous year and also for the town of Dhulia were completed, and projects for all were in hand.

Southern Division.

(1) *Water-supply, Uran Town, and of Mora and Karanja Villages.*—A survey was completed by the Executive Engineer, Ratnágiri and Kolába District, under instructions from the Sanitary Engineer and the project is under preparation. As this scheme, however, would not supply the salt workers who experience great difficulty in obtaining drinking water, the question of a more comprehensive scheme having its source at Ransai is being considered.

(2) *Sháhapáda Water-supply.*—The survey for this project also was carried out by the Executive Engineer, Ratnágiri and Kolába District. A site has been selected for a storage reservoir and a detailed survey for the pipe line and distribution system has been made.

(3) *Belgaum Water-supply.*—On sinking borings a large area of water bearing strata was found below the proposed Town Extension Site, which, if the catchment remains uncontaminated, should provide a good supply to the Town and Cantonment.

(4) *Belgaum Drainage.*—A survey and investigations made in connection with the drainage of the Town and Cantonment were completed and the project prepared.

6. *General.*—The services of Mr. J. Murray Scott, Boring Engineer, and his establishment were transferred to the control of the Sanitary Engineer on the 13th August 1910.

The boring at Godhra was abandoned owing to the hardness of the quartzose granite rock and the plant removed to Belgaum, where the laterite strata in the vicinity of the Dhobie Ghát was thoroughly investigated and a large area of water-bearing strata discovered.

Three native Mechanics were engaged and trained as operators of boring machinery.

Owing to the large demand for boring investigations in different parts of the Presidency, four new machines were ordered. It is intended to set up the largest, capable of boring to a depth of 2,500 feet, at Broach on arrival.

7. *Sanitary Engineer.*—The Sanitary Engineer visited all places in the Presidency, where his presence was required to give advice or to inspect the works in progress or existing installations.

Lectures on Sewage Disposal and on the Poona Drainage Scheme were given by Mr. Mandy at the College of Science, Poona.

CHAS. MANDY, C.E.,
Acting Secretary, Sanitary Board,
Bombay Presidency.

APPENDIX II (*a*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31ST DECEMBER 1910.

I.—Summary.

The inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the harbour and docks during the year ending 31st December 1910 is given in the following summary:—

1,012 vessels of all sorts with 176,925 crew and passengers were examined as against 954 vessels with 177,870 crew and passengers during the preceding year.

The clothing, bedding and other articles of 100,727 members of crews and passengers of outgoing and incoming vessels and of members of crews of vessels lying in the Port were disinfected. Of these 80,776 were Asiatic and African members of crews, third class or deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India 19,951 were members of crews, pilgrims and passengers who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while lying the Port.

33 vessels on which cases of infectious diseases had occurred were disinfected. 23 vessels which carried pilgrims to Jeddah were thoroughly cleansed and freed from rats and cockroaches by means of sulphur dioxide gas generated in a Clayton apparatus. In all 56 vessels of all sorts were disinfected. 459 persons among whom cases of small-pox had occurred were vaccinated. In addition to this number 8,278 outgoing pilgrims were vaccinated by a special vaccinating staff lent by the Municipality under the supervision of the Police Commissioner. Many pilgrims had also been vaccinated in other Provinces and Native States before their departure for Bombay. Including these it is probable that more than 50 per cent. of the departing pilgrims were thus afforded protection from contracting small-pox in the Hedjaz.

II.—Outgoing Vessels.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P., dated the 14th June 1899, and No 2671-P., dated the 2nd October 1902, the medical examination of all vessels, crews and passengers proceeding to ports out of India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with berth accommodation, of fourth class and deck passengers, and of all Asiatic and African servants who sailed on such vessels were carried out immediately before they left the Port of Bombay.

3. 888 outward bound vessels (including Native sailing craft) with 75,003 crew and 62,598 passengers or a total of 137,601 persons were inspected as against 838 vessels with 74,208 crew and 68,369 passengers or a total of 142,577 persons during the preceding year.

4. The bedding, boxes and suspected articles of clothing, etc., of 44,135 Asiatic and African members of crews and of 34,469 third, fourth class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection the clothing, bedding and other effects of 2,008 members of crews and 164 passengers who sailed in Native craft for ports out of India were also disinfected. Thus the total number of outward bound crew and passengers whose clothing, bedding, etc., were disinfected comes to 80,776 during the year under report as against 84,955 during the the year 1909.

5. A few vessels had cases of infectious diseases among their crews or passengers within 12 days prior to their departure from this port. The Bills of Health granted to them mentioned the illness which occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of the disease on board or at other ports.

III.—Incoming Vessels.

6. In accordance with the rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, *vide* Notification, General Department (Plague), No. 1645-P., dated the 12th March 1900, and Notification, General Department, No. 625, dated the 1st February 1905, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P., dated the 31st March 1900, medical inspection and disinfection of vessels which were actually infected or suspected to be infected with plague, yellow fever, cholera, small-pox, measles, chicken-pox or scarlatina were carried out. All vessels which arrived from East African Ports were also inspected for the detection of cases of jigger and sleeping sickness.

7. 111 incoming vessels of various kinds with crews aggregating 8,424 persons and 30,446 passengers were inspected during the year. Of the 111 vessels inspected 26 were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. 2 troopships arrived with 476 crew and 2,979 passengers among whom 2 cases of measles had occurred. The patients were taken charge of by the Military Authorities for treatment in their hospital. The clothing and bedding of the crews were thoroughly disinfected. 3 vessels arrived from East African ports with 419 passengers among whom 8 cases of jigger had occurred. The cases were removed to the Gokuldas Tejpal Hospital for treatment. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. The clothing and bedding of the crews were also disinfected. 14 vessels arrived from Jeddah with 1,268 crew and 11,873 pilgrims, among whom 1 case of plague, 115 cases of small-pox and 1 case of chicken-pox occurred. Of the 115 cases of small-pox, 56 were landed at Bombay and sent to hospital, 7 died during the voyage, 1 patient jumped overboard, 1 was reported as missing, and the remaining 50 were landed at intermediate ports. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations up-country. The vessels were disinfected and were also fumigated by the Clayton apparatus. 322 pilgrims who were willing to get themselves vaccinated were vaccinated. The remaining 7 vessels with 1,114 crew and 1,162 passengers had on board on arrival or during the voyage 14 cases of plague, 4 cases of small-pox, 4 cases of measles and 1 case of scarlatina. The clothing and bedding of the persons among whom the cases had occurred were disinfected. The vessels were disinfected and those on which cases of plague had occured were thoroughly fumigated by the Clayton apparatus, the bedding and effects of crews being separately disinfected.

IV.—Infectious Diseases on Vessels departing and arriving and in the Harbour and Docks.

8. Tabular statement No. 1 gives the number of cases of infectious diseases which occurred on vessels departing, arriving and in the harbour. It will be seen that 150 cases occurred on vessels arriving as follows:—15 cases of plague, 119 cases of small-pox, 6 cases of measles, 1 case of chicken-pox, 8 cases of jigger and 1 case of scarlatina, and that 2 cases of plague and 16 of small-pox are reported to have been landed at Aden from ships which had left Bombay; of these latter the plague attacks occurred after some days' absence from Bombay, and neither case exhibited any sign while leaving this Port. One was a European on the S. S. "Hindoo" which carried only Europeans. From inquiries it would appear that he bought a monkey in Bombay which sickened and died en route to Aden, and that he fell ill soon after, the attack being mild and ending favourably. Particulars of the case were referred to the Director of the Bacteriological Research Laboratory with a view to deciding as to whether restrictions should be made against the carrying of monkeys on ships, but the reply received contraindicated the submission of any proposals. With regard to the small-pox cases these included a most unusual outbreak on one ship the S. S. "Alavi" from which 7 cases are reported to have been removed and 3 cases from a pilgrim-ship the S. S. "Homayun." The S. S. "Alavi" left this Port on the 2nd of February 1910 and arived at Aden after being ten days out. Small-pox was prevailing here in epidemic form when she left, and one passenger showing signs of small-pox was prevented from embarking. No other person exhibited any signs of infection and all the usual precautions and routine were observed. The annual statement of the Port Surgeon, Aden, was the first intimation of this outbreak. I have therefore no particulars as to among whom it occurred or its probable cause. Enquiries are being made and a further report will be sent if any details be ascertained which might suggest the probable causation.

9. Regarding the S. S. "Homayun," the Captain of the vessel thinks it highly probable that the 3 cases were members of a party of nine, which it was found in Camaran must have been in excess of the number which was given in the Bombay Bill of Health, that number being the result of a triple tally by the Port Health Staff, the Pilgrim Police and the Preventive Department. These 9 were probably stowed away. No pilgrim exhibited any sign of infection at the final inspection here. The other cases, from the records, must, with one exception, have been either in the incubating stage or still not infected when leaving Bombay and were therefore not detected before sailing. The exception was a European who showed undoubted signs the day after sailing. Dr. Venis, who examined him, observed nothing unusual and states that in response to the usual queries he stated that he was quite well.

10. Tabular statement No. 2 gives details of infectious diseases on vessels in the harbour and docks. The clothing and bedding of the crews of these vessels aggregating 454 persons were disinfected. All these vessels were thoroughly disinfected.

11. A telephonic clerk of the P. & O. S. N. Company was found at No. 13 Shed, Victoria Dock, suffering from cholera. He was removed to the Arthur Road Hospital where he is reported to have died. The necessary steps for the disinfection of the shed were taken by the Dock Authorities.

V.—Disinfection and Fumigation of Ships.

12. During the year under report 56 vessels of all sorts were disinfected under the personal supervision of the Port Health Officer or of one of the Port Health Staff. Of the 56 vessels, 23 were outward bound pilgrim-ships and 14 were small-pox infected ships which brought pilgrims from Jeddah to Bombay.

13. The fumigation of 55 vessels including 37 outward and inward pilgrim-ships was carried out by means of the Clayton process. Some of the ships were fumigated at the request of their owners or agents, so as to free them from rats. Of the 55 vessels fumigated 11 were done by the British India Steam Navigation Company's apparatus under the supervision of the Port Health Officer.

14. The vessels on which cases of plague occurred had their holds thoroughly fumigated.

15. The Port Disinfection Station received every Monday clothing and bedding from various hospitals for disinfection. 277 bundles containing such clothing and bedding were disinfected against 442 during the previous year.

VI.—General Health of the Shipping.

16. During the year under report 852 persons connected with the shipping were admitted into the various hospitals in the city. The St. George's Hospital admitted 492 European patients, of whom 29 died, 451 were discharged cured and 12 remained under treatment after the 31st December 1910. The Jamsetji Jijibhoy Hospital admitted 113 Native patients, of whom 11 died and the Gokuldas Tejpal Hospital 247 Natives, of whom 23 died.

17. No deaths occurred in connection with the cleansing of bilges of ships during the year. There were 180 accidents on board of vessels which were lying in the harbour or docks. Of these 23 proved fatal.

VII.—Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

18. In accordance with Government of India's Notification, Home Department (Sanitary), No. 1606, dated the 13th July 1908, and Government Resolution, General Department, No. 4361, dated the 18th August 1909, the Port of Bombay was opened for the embarkation of Mahomedans making a pilgrimage to Mecca viâ Jeddah. Before the pilgrims embarked, the ships were thoroughly cleansed and freed from rats by means of the Clayton process under the personal direction of the Port Health Officer. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark on the ships by which they intended to sail for Jeddah.

19. The names of the ships, the numbers of pilgrims carried by them, and the dates on which they left Bombay for Jeddah are given below :—

	Name of vessel.	Number of pilgrims sailed.	Date of departure.
1.	S. S. "Rahmani"	752	11th August 1910.
2.	S. S. "Firoozi"	948	26th do.
3.	S. S. "Homayun"	809	2nd September 1910.
4.	S. S. "Alavi"	846	7th do.
5.	S. S. "Siberien"	677	16th do.
6.	S. S. "Majidi"	746	27th do.
7.	S. S. "Islami"	824	7th October 1910.
8.	S. S. "Firoozi"	940	9th do.
9.	S. S. "Budrie"	722	14th do.
10.	S. S. "Homayun"	822	14th do.
11.	S. S. "Shah Jehan"	1,398	19th do.
12.	S. S. "Rahmani"	756	21st do.
13.	S. S. "Khosrou"	914	26th do.
14.	S. S. "Fakhri"	958	29th do.
15.	S. S. "Naseri"	404	30th do.
16.	S. S. "Naderi"	548	31st do.
17.	S. S. "Alavi"	841	4th November 1910.
18.	S. S. "Mohammadi"	697	12th do.
19.	S. S. "Najmi"	638	16th do.
20.	S. S. "Majidi"	728	16th do.
21.	S. S. "Firoozi"	745	16th do.
22.	S. S. "Homayun"	773	18th do.
23.	S. S. "Budrie"	528	19th do.
	Total ...	18,014	

20. It will be seen that 18,014 pilgrims left during the season.

21. The classification of the pilgrims is as follows:—

468	Bombay City.		
1,389	Bombay Presidency (including Sind).	81	Tibet.
739	Madras Presidency.	259	Chinese Territory.
568	Bengal Presidency (including Behar).	1,059	Afghanistan.
		50	Baluchistan.
3,671	Eastern Bengal and Assam.	157	Persia.
2,837	United Provinces and Oudh.	468	Russian Territory.
2,658	Punjab and North-West Provinces.	236	Arabia.
		17	Africa.
579	Central Provinces.	48	Java.
252	Burma.	4	Borneo.
16	Ceylon (British Colony).	9	Turkey in Asia.
1,348	Native States of British India.	1,101	Unclassified.
14,525		3,489	

Total ... 18,014

22. 8,278 outgoing pilgrims were vaccinated before starting by a special staff placed under the Police Commissioner by the Municipality. Besides these, many pilgrims from other Provinces and Native States had been vaccinated before leaving their homes for Bombay. It is thus probable that more than half of the pilgrims had been persuaded to voluntarily undergo vaccination and, considering that most of these were illiterate and many fanatical, it reflects the greatest credit on the Pilgrim Department under the Commissioner of Police and others who aided in persuading so large a percentage to avail themselves of the measure. It is hoped that the degree of immunity thus afforded will materially reduce the risk of infection in the Hedjaz.

23. A fully equipped plague observation station, capable of receiving an entire ship-load of pilgrims from a plague-infected vessel for treatment under Article 21 of the Paris Convention, was established at Perim. All the pilgrim-ships, after having been inspected at Aden or Perim, called at Camaran where they landed their passengers to undergo observation according to Turkish Rules before the Turkish Authorities allowed them to proceed to Jeddah.

24. As far as I can gather there was no case of plague or cholera among the pilgrims who left for Mecca during the year under report. When outbreaks of plague occur among the pilgrims congregated at Mecca it should be remembered that the disease is, and has been for generations, endemic in the Hadramaut and in part of the Red Sea Coast of Arabia, as otherwise other countries may be blamed unjustly for the spread of the disease.

25. From the medical diaries of the doctors in medical charge of pilgrim-ships it appears that there were 106 deaths between Bombay and Jeddah. The causes are attributed to fever, old age, general debility, diarrhoea, etc. The number mentioned above does not include the deaths which took place at Camaran while the pilgrims were undergoing quarantine.

26. During the season under report no doctor was appointed to the medical charge of a pilgrim-ship unless he was in possession of either a degree, or at least the license of a recognised Indian University, or the qualification of a Military Assistant Surgeon. The class of medical officer offering was above the average and, with a view to maintaining a high standard, proposals have been made to Government (*vide* this office letter No. 1723, dated 6th December 1910, to the Personal Assistant to the Surgeon General with the Government of Bombay) for the prescription of rules which will safeguard their interests to a greater extent than has hitherto obtained.

B.—Inward Pilgrim Traffic.

27. During the year under report 16,900 pilgrims of the previous year's Haj arrived from Jeddah in 21 vessels. The names of ships and the number of pilgrims brought by each vessel, as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay are tabulated in statement No. 3 which is attached to this report.

28. The total number of deaths which occurred at sea among the returning pilgrims was 363. The chief causes were old age, general debility, small-pox, dysentery, diarrhœa and privation.

29. Fourteen pilgrim-ships had, during their voyage from Jeddah to Bombay, 1 case of plague, 115 cases of small-pox and 1 case of chicken-pox. The case of plague was landed at Perim from S. S. "Alavi." Of the 115 cases of small-pox 1 occurred among members of crews and the remaining 114 among the pilgrims. Of these 7 died during the voyage, 1

jumped overboard and was drowned, 1 was reported as missing and 50 were landed at intermediate ports. Of the remainder 49 were found on board on the arrival of the vessels at Bombay and 7 were detected while undergoing disinfection at the disinfection station. These were all sent to the Arthur Road Hospital for treatment. Vaccination was offered to the pilgrims among whom small-pox had occurred, but only 322 availed themselves of the measure.

30. Fourteen small-pox infected vessels were thoroughly fumigated by the Clayton apparatus and two others at the request of the owners. 11,873 pilgrims among whom small-pox had occurred had their clothing and bedding disinfected before they were handed over to the Protector of Pilgrims for despatch to their homes. The effects of 1,268 members of crews of the infected ships were also disinfected.

VIII.—Emigration Traffic.

31. Owing to the prevalence of plague in the City of Bombay, the Emigration Traffic has been suspended since the year 1897.

IX.—Sanitary state of the Harbour and Foreshore.

32. The sanitary state of the harbour and of the various bandars, basins and docks was fairly satisfactory.

X.—Cholera, Small-Pox and Plague in the City of Bombay.

33. During the year under report 107 deaths from cholera, 1,008 deaths from small-pox and 3,656 deaths from plague occurred in the City of Bombay.

XI.—Establishment.

34. The following list shows the names of the medical officers and subordinates who did duty under the Port Health Officer from time to time during the year:—

Names.	Period of service.
	Y. m. d.
Dr. H. C. Venis	0 5 2
Lieutenant H. W. deB. Prescott, I. S. M. D.	0 0 10
Dr. (Miss) S. Smith	0 11 0
Dr. (Miss) M. E. Graham	0 1 0
Assistant Surgeon H. F. Otto, I. S. M. D.	1 0 0
Sub-Assistant Surgeon B. M. Bhatt	1 0 0
Do. do. F. H. Anklesaria	0 11 0
Do. do. M. N. Doctor	0 1 0
Temporary Assistant Surgeon B. Harishanker	0 2 0

35. With one exception, the above staff carried out their duties with much zeal and tact and to my entire satisfaction.

The work was heavy during the pilgrim season and no English doctor being then available the services of a Commissioned Medical Officer had to be engaged on ten occasions under Government Resolution, General Department, No. 4087, dated 27th July 1897, Lieutenant-Colonel Crimmin being the officer selected. His assistance was especially valuable owing to his experience and intimate knowledge of port and pilgrim work.

36. Inspector A. Dixon in charge of the Sanitary Police controlled the staff under him and discharged his onerous duties in a most exemplary and praiseworthy manner. To his tact and attention to detail is largely due the freedom from friction which characterized the year's work.

Mr. Shamrao S. Dhurandhar.
Mr. Dattatraya V. Gokhale.

37. Mr. Ramrao G. Kamalakar and the marginally noted members of the office staff under him performed their duties most satisfactorily.

38. The office peons and all the members of the disinfection and steam launch establishments worked satisfactorily.

39. Mr. M. I. Tungekar, the Protector of Pilgrims, Miss G. M. A. Jessop, the Lady Inspector who was detailed to count pilgrims from time to time, Mrs. Currie, Lady Superintendent of Pilgrims, Mr. H. M. Robottom, the Inspector of the Preventive Service,

and the Dock Police under Superintendent J. Walton rendered much help to the Port Health Staff while carrying out the inspection and disinfection of pilgrims, and in connection with their despatch from the disinfection station to the steamers by which they travelled.

40. I am also indebted for valuable assistance in the embarkation of pilgrims and otherwise to Mr. C. R. Watkins, Assistant Collector of Customs, who gave up much of his time in order to help in securing harmonious working between the different departments concerned.

41. The shipping agents and commanders of vessels, as a rule, observed the regulations, and carried out cheerfully the orders framed in connection with the Paris Sanitary Convention.

W. E. JENNINGS, M.D., D.P.H.,
Lieut.-Colonel, I. M. S.,
Health Officer of the Port.

Bombay Port Health Office, Town Customs House,
dated 27th January 1911.

TABLE No. 1.

The following tabular statement gives a summary of the Shipping of the Port of Bombay and the work in connection therewith for the year ending 31st December 1910 :—

Vessels including Country Craft.	Number of Vessels inspected.	Number of Persons including crew of vessels.	Number of Native crew and third class or Deck passengers disinfected.	Number of Vessels disinfected and fumigated.	Number of Persons vaccinated.	Diseases and number of cases of each.						
						Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Scarlatina.
1910.												
Entered	117	38,870	19,497	26	459	15	...	119	6	1	8	1
Left	888	137,601	80,776	23	8,278	2	...	16	2	2	...	...
In harbour during the year ...	7	454	454	7	...	1	1	4	...	3	...	...
Total ...	1,012	176,925	100,727	56	8,737	18	1	139	8	6	8	1
Total for 1909 ...	954	177,870	102,253	70	5,250	5	15	108	1	8	2	2

TABLE No. 2.

The following table includes all steamers, square-rigged vessels and Native craft which became infected while lying in the Port of Bombay during the year 1910 :—

Months.	Number of persons who were attacked with infectious diseases at the Bandars and in Docks.		Total Number of infected vessels.	Total number of cases of infectious disease in the Bombay Harbour.					Number of crew disinfected.
	Plague.	Cholera.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	
1911.									
January	...	...	...	...	...	...	...	...	...
February	...	...	1	...	...	1	...	...	54
March	...	...	5	...	...	3	...	3	360
April	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...
November	...	...	1	1	...	...	...	...	10
December	...	1	...	...	...	...	...	...	...
Total ...	...	1	7	1	...	4	...	3	454
Total for 1909 ...	1	...	21	2	14	9	...	5	895

TABLE No. 3.

Statement showing the number of pilgrims who returned to Bombay from Mecca by vessels during the year 1910 :—

No.	Name of Ship.	Date of arrival.	Number of crew inspected.	Number of pilgrims inspected.	Number of deaths during voyage.	Number of cases of infectious diseases on board and during voyage on arrival.		Number of persons vaccinated.	Remarks.
						On arrival.	During voyage.		
1	S. S. "Alavi" ...	20th January 1910 ...	80	822	29	3	...	133	
2	S. S. "City of Vienna" ...	21st do. ...	100	1,032	23	6	6	113	
3	S. S. "Markgraf" ...	21st do. ...	86	949	32	9	14	58	
4	S. S. "Fakhri" ...	22nd do. ...	104	971	25	5	17	...	
5	S. S. "Firoozi" ...	24th do. ...	90	903	36	2	10	4	
6	S. S. "Islami" ...	27th do. ...	76	814	24	2	...	10	
7	S. S. "Rahmani" ...	30th do. ...	77	781	13	4	2	1	
8	S. S. "Budrie" ...	2nd February 1910 ...	89	568	6	7	...	...	
9	S. S. "Mahommadi" ...	5th do. ...	80	706	17	5	3	...	
10	S. S. "Majidi" ...	11th do. ...	81	782	17	4	6	3	
11	S. S. "Shah Jehan" ...	9th March 1910 ...	160	1,419	23	6	2	...	
12	S. S. "Alavi" ...	15th do. ...	82	580	17	1	1	...	
13	S. S. "Siberian" ...	18th do. ...	87	671	4	...	...	...	
14	S. S. "Markgraf" ...	19th do. ...	87	985	8	...	...	...	
15	S. S. "Budrie" ...	28th do. ...	79	544	8	1	...	...	
16	S. S. "Saifi" ...	31st do. ...	96	653	16	...	...	...	
17	S. S. "Islami" ...	5th April 1910 ...	77	846	21	...	...	...	
18	S. S. "Najmi" ...	8th do. ...	94	1,002	21	1	...	...	
19	S. S. "Firoozi" ...	10th do. ...	81	942	11	...	...	...	
20	S. S. "Rahmani" ...	12th do. ...	90	763	12	...	...	...	
21	S. S. "Moshtari" ...	2nd May 1910 ...	70	167	...	...	...	...	
		Total ...	1,846	16,900	363	56	61	322	

APPENDIX II *(b)*.

ANNUAL REPORT BY THE HEALTH OFFICER OF THE PORT OF KARACHI FOR THE YEAR 1910.

Detention Camp, Grass Bunder,
Karáchi, dated 23rd January 1911.

Outgoing Vessels.

During the year 442 outward bound steam vessels were inspected by the Health Officer of the Port and were given Bills of Health as against 373 steam vessels during the preceding year. Of this number 270 were proceeding to Aden, the Red Sea and Europe, and 172 to other places out of India including the Persian Gulf.

Bills of Health were also given after inspection to 234 country boats.

The native crews and deck passengers of all vessels proceeding to ports out of India were medically inspected at the Port Health Camp and their kit (excepting boots) was disinfected by steam. The boots when requiring disinfection were exposed to the action of Formaldehyde Gas.

Incoming Vessels.

60 steam vessels and 12 country boats were inspected for the existence of infectious diseases. Out of 60 steam vessels 40 arrived from East African Ports, 4 (troopships) from Southampton and the remaining 16 from other ports. The 12 country boats all arrived from East African Ports.

Plague.

3 cases were removed from incoming vessels to the Epidemic Diseases Hospital, Karáchi, during the year under report.

Cholera.

No cases occurred in the harbour or amongst the shipping, visiting the Port during the year.

Small-Pox.

During the year 6 cases were removed to the Epidemic Diseases Hospital, Karáchi, from incoming vessels, and 3 cases were discovered amongst passengers embarking at Karáchi.

Chicken-Pox.

2 cases were removed from incoming vessels to hospital during the year.

Measles.

1 case was removed to hospital from incoming vessels.

Jigger and Sleeping Sickness.

No cases of these diseases were detected during the year under report.

Diseases other than the abovementioned.

14 deaths occurred on board of vessels either during the voyage or in the harbour.

16 cases were removed to the Civil Hospital suffering from high temperature, and 4 passengers embarking at Karáchi were rejected at the medical inspection, 3 of whom were found to be suffering from pyrexia and 1 from the after-effects of plague (open bubo).

Red Sea Pilgrims.

No pilgrims passed through Karáchi during the year.

Emigrants.

During the year 40 artizans bound for the Uganda Railway along with 12 domestic servants and 13 dependants passed through the Port Health Camp where they underwent

five days' segregation before embarking for Bombay en route to Mombassa. Prior to embarking they were medically inspected and their kit disinfected at the Port Health Camp.

The following is a tabular statement of the vessels, crews and passengers inspected during the year :—

	Vessels.			Crews and passengers.		
	Steamers.	Country boats.	Total.	Steamers.	Country boats.	Total.
Incoming Vessels ...	60	12	72	12,072	212	12,284
Outgoing Vessels ...	442	234	676	53,337	3,058	56,378

Out of the total number of crews and passengers who were medically inspected as shown above, 35,377 also had their kit disinfected.

358 saloon passengers for Europe were medically inspected on shore and given passes here for direct transhipment to P. & O. mail steamers at Bombay during the monsoon season (10th June to 3rd September 1910). The disinfection of crews and deck passengers of steamers coming from Bombay and proceeding to the Persian Gulf viâ Karáchi was carried out at Bombay instead of here, in accordance with Government Resolution No. 1427-P of 29th November 1909, the steamers being in strict quarantine while they remained in the Port of Karáchi and the coolies being disinfected and medically inspected at the Disinfection Camp before being allowed on board to work cargo. After the 3rd September 1910 the disinfection of the abovementioned steamers was carried out here (Karáchi) in accordance with the abovementioned Government Resolution.

Clayton Apparatus.

The Clayton apparatus was used on four occasions in connection with the following vessels :—

(1) R. I. M. S. "Northbrook" (for small-pox).
(2) S. S. "Austria" (for plague).
(3) S. S. "Hartlepool" (for plague).
(4) S. S. "Rahmani" (before proceeding to Jeddah to convey pilgrims thence to Bombay).

The Clayton apparatus worked satisfactorily, as large numbers of dead rats and cockroaches were found in the holds of these vessels after the fumigation by means of the sulphur dioxide gas generated in the Clayton apparatus.

Camp.

Negotiations are still proceeding between Government and the Karáchi Port Trust regarding the (new) site near the Keamari foreshore reclamation, to which it was proposed last year that the present Port Health Office and Disinfection Station should be removed. The site in question has yet to be reclaimed by the Port Trust. The present Disinfection Camp has been encroached upon to such an extent by the railway lines of the Port Trust that when more than one vessel's crew and deck passengers arrive for disinfection at a time (as is often the case), there is not sufficient room in the camp to conveniently accommodate them all.

Owing to the steady increase in the number of crews and deck passengers who are disinfected before sailing from this Port, it will soon be necessary to supplement the small Equifex Disinfection Stove which is now in use here by a second stove of similar size or to replace it by a large Equifex stove (of the same size as the large stove used at the Bombay Port Health Disinfection Station) in order to carry out the disinfection efficiently and with despatch.

Staff.

The duties connected with the Port Health Department were carried out by Assistant Surgeon A. H. MacGregor, I. S. M. D., from 1st January to 10th June 1910, on which date I took over charge as Port Health Officer, Assistant Surgeon MacGregor reverting to his duties as Assistant Port Health Officer. He rendered valuable help in the general

work of the Port Health Department. Mrs. Lake, the Lady Nurse, performed her duties carefully and satisfactorily. The Sub-Assistant Surgeons attached to the Port Health Camp were Messrs. Sheikh Umer from 1st January to 3rd February, Rustom J. Behramji from 4th February to 14th July and Baharsing Toursing from 15th July to 31st December 1910. They all carried out their duties with zeal and tact, and Sub-Assistant Surgeon Baharsing rendered excellent service in connection with the disinfection of crews and passengers at the camp.

The clerk, Mr. Mahomed Jaffer Sheikh Ibrahim, performed his duties diligently and to my entire satisfaction.

The office peons and all the members of the disinfection and steam launch establishments worked satisfactorily.

With the sanction of Government, from 1st October 1910 the services of the Disinfection Supervisor, Metharam Pertabrai, one hospital attendant, one lamp-lighter, and two sweepers were dispensed with as it was found that they were no longer necessary.

Mr. Metharam Pertabrai reverted to his original post of clerk in the office of the Chief Collector of Customs, Karáchi, and during the five years that his services were lent to this Department as a Disinfection Supervisor he carried out the duties entrusted to him with tact and zeal and to the entire satisfaction of all the Port Health Officers under whom he served.

Sanitary State of the Harbour.

The sanitary state of the harbour was fairly satisfactory.

H. C. VENIS,
Acting Port Health Officer,
Karáchi.

APPENDIX II *(c)*.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF ADEN FOR THE YEAR 1910.

I.—General Remarks.

Shipping:—1,455 steamers and square-rigged vessels were granted Bills of Health during the year.

Of the above number, 887 under the British Flag and 568 under Foreign Flags.

Bills of Health issued to the vessels from infected ports were annotated according to the circumstances of each case.

1,144 Bills of Health were issued to buggalows during the year.

The accompanying table A gives a list of vessels on board of which infectious diseases existed on arrival. In the case of these vessels all possible sanitary precautions were taken on arrival at Aden to prevent the spread of disease.

Vessels and Native craft arriving from Berbera, the Somali coast and from East Africa were personally inspected and certified free from small-pox, jigger and sleeping sickness.

The following cases of infectious diseases were landed from the shipping:—

Small-pox	30
Chicken pox	2
Measles	2
Plague	5

5 cases of Fever landed from the S. S. "Alavi" under observation for Plague were discharged cured.

II.—Pilgrim Traffic.

57 Pilgrim ships carrying pilgrims passed through this port during the year; all were medically inspected, but not granted pratique:—

Year.	Number of ships.	Number of pilgrims.	Number of deaths.	Cases of infectious diseases on board.			Remarks.
				Cholera.	Plague.	Small-pox.	
1910	57	43,604	191	Nil.	5*	17	* Cases of Fever landed under observation for Plague.

III.—Table A.

List of vessels on board of which infectious diseases existed on arrival at Aden:—

Number of ships.	Number of cases landed.	Number of cases died.	Number of cases recovered.	Average of cases per ship.	Average stay in hospital of each patient.		Remarks.
					Fatal. 5·5	Non-fatal. 29·5	
21	44*	9	34	2	24		* A case of small-pox under treatment.

Date and Month.	Names of Vessels.	From	To	Number of Cases.	Whether pilgrim or otherwise.	Remarks.
14th January 1910	S.S. "Firoozi"	Jeddah	Bombay	2 Small-pox	Yes.	
21st „	„ "Bohemia"	Bombay	Trieste	1 Plague	No.	
27th „	„ "Mohammadi"	Jeddah	Bombay	1 Small-pox	Yes.	
1st February 1910	„ "Hilal"§	Perim	Jeddah	.....	„	
2nd „	„ "Majidi"	Jeddah	Bombay	2 Small-pox	„	
12th „	„ "Alavi"	Bombay	Jeddah	*7 „	„	*Among two families from Faridpore Disease probably developed after the ship left Bombay.
24th „	„ "Islami"	Karachi	Aden	4 „	No.	
1st March 1910	„ "Caledonia"	Bombay	London	1 „	„	
5th „	„ "Alavi"	Jeddah	Bombay	†5	Yes	†Cases of Fever landed under observation for Plague.
19th „	„ "Alala"	Bombay	Naples	1 Small-pox	No.	
24th „	„ "Silesia"	„	Trieste	1 Chicken-pox	„	
11th April 1910	H. I. M. S. "Dalhousie". While she was in the Harbour.			1 Small-pox.		
23rd „	S.S. "Culna"	Bombay	Antwerp	2 „	„	
26th „	„ "Budrie"	Jeddah	Bombay	1 Chicken-pox	„	
29th „	„ "Castello"	Karachi	Hull	1 Small-pox	„	
1st May 1910	„ "Hindoo"	Bombay	„	1 Black Plague	„	
13th June 1910	„ "Melbourne"	China	Marseilles	1 Small-pox	„	
25th „	„ "Newburn"	Bombay	Port Said	1 „	„	
12th September 1910.	„ "Homayun"	„	Camaran	3 „	Yes.	
22nd October 1910	„ "Himalaya"	London	Bombay	3 Plague	No.	
29th „	„ "Shah Jehan"	Bombay	Jeddah	.....	Yes.	
20th November 1910.	„ "Rewa"	Southampton	Karachi	‡1 Scarlet Fever	No	‡Case of Scarlet Fever treated on board infectious ward.
21st „	„ "Mohammadi"	Bombay	Jeddah	2 Small-pox	Yes.	
27th „	„ "Pundua"	Zanzibar	Zanzibar	1 „	No.	
21st December 1910.	„ "Praga"	Bombay	Trieste	2 Measles	„	

§ On 11th January this vessel arrived here with 6 cases of Small-pox on board and was sent to Perim to land the cases and kept in quarantine at Perim for 14 days. Prior to her departure 3 fresh cases were found on board. The Small-pox cases were detained at Perim and on her arrival at Aden the passengers put in quarantine.

The following are the names and other information regarding pilgrim ships which passed through Aden during the year:—

Number.	Date and Month.	Names of Vessels.	Nationality.	From	To	Declared Number of Pilgrims.	Number of cases of Infectious disease.	Death.
1	10th January 1910	S.S. "Alavi"	British	Jeddah	Bombay	842	.....	4
2	12th „	„ "City of Vienna."	„	„	„	1,046	.....	6
3	13th „	„ "Fakhri"	„	„	„	966	.....	13
4	14th „	„ "Markgraf".	German	„	„	966	.....	...
5	„ „	„ "Firoosi"	British	„	„	924	2 Small-pox.	5
6	17th „	„ "Islami"	„	„	„	823	.....	7
7	20th „	„ "Rahmani".	„	„	„	802	.....	5
8	24th „	„ "Budrie"	„	„	„	575	.....	2
9	27th „	„ "Mohammadi".	„	„	„	714	1 Small-pox.	6
10	1st February 1910	„ "Hilal"	Turkish	Perim	Jeddah	10	.....	...
11	2nd „	„ "Majidi"	British	Jeddah	Bombay	791	2 Small-pox.	...
12	12th „	„ "Alavi"	„	Bombay	Jeddah	52	7 „	...
13	28th „	„ "Shah Jehan".	„	Jeddah	Bombay	1,404	.....	8
14	1st March 1910	„ "Euphrate".	Russian	„	Persian Gulf.	663	.....	...
15	5th „	„ "Alavi"	British	„	Bombay	825	*5	5
16	9th „	„ "Sibirien"	„	„	„	688	.....	2
17	14th „	„ "Islami"	„	„	„	828	.....	8
18	19th „	„ "Budrie"	„	„	„	542	.....	4
19	22nd „	„ "Saifi"	„	„	„	619	.....	3
20	29th „	„ "Najmi"	„	„	„	966	.....	7
21	2nd April 1910	„ "Firoosi"	„	„	„	931	.....	7
22	3rd „	„ "Rahmani"	„	„	„	780	.....	4
23	23rd „	„ "Moshtari".	„	„	Aden	260	.....	...

* ases of Fever landed under observation for Plague.

Number.	Date and Month.	Names of Vessels.	Nationality.	From	To	Declared Number of Pilgrims.	Number of cases of Infectious disease.	Death.
24	6th August 1910 ...	S. S. "Menado".	Dutch ...	Java ...	Rotterdam...	1,172	.....	2
25	23rd " ...	" "Rahmani".	British ...	Bombay ...	Jeddah ..	748	.....	6
26	2nd September 1910 .	" "Medan"...	Dutch ...	Penang ...	Rotterdam...	906	.....	2
27	6th " ...	" "Firoozi" .	British ...	Bombay ...	Jeddah ...	948	.....	1
28	12th " ...	" "Homayun".	" ...	" ...	" ...	800	3 Small-pox.	4
29	17th " ...	" "Alavi" ...	" ...	" ...	" ...	846	.....	...
30	27th " ...	" "Sibirien" .	" ...	" ...	" ...	676	.....	...
31	11th October 1910 ...	" "Majidi" .	" ...	" ...	" ...	739	.....	10
32	17th " ...	" "Islami"...	" ...	" ...	" ...	822	.....	1
33	18th " ...	" "Firoozi"...	" ...	" ...	" ...	945	.....	3
34	19th " ...	" "Sicilia" ...	German ...	Persian Gulf.	Camaran ...	273	.....	...
35	20th " ...	" "Huseinie".	British ...	Busrah ...	Jeddah ...	428	.....	...
36	21st " ...	" "Homayun".	" ...	Bombay ...	" ...	821	.....	1
37	22nd " ...	" "Budrie" .	" ...	" ...	" ...	722	.....	...
38	29th " ...	" "Shah Jehan".	" ...	" ...	" ...	1,391	.....	7
39	30th " ...	" "Rahmani".	" ...	" ...	" ...	954	.....	2
40	3rd November 1910...	" "Khosrau".	" ...	" ...	" ...	914	.....	1
41	6th " ...	" "Fahkri" .	" ...	" ...	" ...	958	.....	...
42	7th "	" "Naseri" .	" ...	" ...	" ...	404	.....	...
43	9th " ...	" "Naderi" .	" ...	" ...	" ...	548	.....	2
44	12th " ...	" "Alavi" ...	" ...	" ...	" ...	839	.....	2
45	21st " ...	" "Mohammadi".	" ...	" ...	" ...	705	2 Small-pox.	3
46	24th " ...	" "Majidi" .	" ...	" ...	" ...	742	.....	2
47	" " ...	" "Firoozi" .	" ...	" ...	" ...	744	.....	1
48	25th " ...	" "Sibirien".	" ...	Busrah ...	" ...	840	.....	1
49	" " ...	" "Najmi" .	" ...	Bombay ...	" ...	636	.....	2
50	26th " ...	" "Homayun".	" ...	" ...	" ...	775	.....	2
51	" " ...	" "Budrie"...	" ...	" ...	" ...	527	.....	1
52	29th December 1910 .	" "Naderi" .	" ...	Jeddah ...	Karachi and Bombay.	546	.....	3
53	" " ...	" "Majidi" .	" ...	" ...	" ...	742	.....	3
54	" " ...	" "Firoozi" .	" ...	" ...	Bombay ...	945	.....	8
55	" " ...	" "Mohammadi.	" ...	" ...	Busrah ...	708	.....	1
56	31st " ...	" "Najmi"...	" ...	" ...	Karachi and Bombay.	877	.....	9
57	" " ...	" "Fakhri" .	" ...	" ...	Bombay ...	948	.....	15

V.—Prevailing Diseases.

Dysentery, malarial fever, diseases of respiratory system, ulcers, digestive system and small-pox.

Vaccination was offered to all arrivals as an alternative to quarantine, and residents of Aden, who had not been vaccinated, were persuaded to undergo the operation.

VI.—Table showing the number of cases treated at the Small-pox Hospital, Maala, during the year :—

Year.	Remaining as per last return.	Admissions.	Deaths.	Protected.	Unprotected.	Remarks.
1910 ...	1	38	4	22	17	1 Chicken-pox. 38 Small-pox.

Source of Admissions.						Europeans.	Remarks.
Shipping.	Steamer point.	Maala.	Crater.	Sheik Othman.	Interior.		
10	8	3	13	...	...	4	

VII.—Statement showing the tubes received, their cost and the vaccination operations performed during the year :—

Number of tubes received.		Cost.		Remarks.
English.	Bombay.	Lanoline.	Glycerinated Vaccine.	
Nil.	3,800	.....	Rs. a. p. 950 0 0	

Total number of operations performed.	Result.			Remarks.
	Successful.	Failed.	Unknown.	
4,576	.....	.....	4,576	

VIII.—ESTABLISHMENT.

Lieut.-Colonel S. E. Prall, I. M. S., from 1st January to 31st December 1910.

IX.—OFFICE ESTABLISHMENT.

Mr. A. E. Almeida, Clerk, 1st January to 31st December 1910.
Lakshman Krishna, Peon, do.

X.—LAUNCH ESTABLISHMENT.

1. Driver *Awad Saeed, 1st January to 15th November 1910.
2. Succani Ahmed Suleman, 1st January to 31st December 1910.
3. Stoker Hussein Noman, do.
4. Lascar Mahommad Magon, do.

S. E. PRALL,
Lieut.-Colonel, I. M. S.,
Port Surgeon, Aden.

* On three months' privilege leave from 16th November 1910. Driver Sheikh Ali was entertained on salary Rs. 50.

APPENDIX III.

The following table shows for the towns mentioned when the drainage and water-works were completed and the average annual death-rate for the five-year period preceding the introduction, and also the ratio for the five-year period ending with the year under report, exclusive of recorded plague mortality.

The rural death-rates for each district are added for comparison.

District.	Táluka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1910 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in rural circles for the year 1910.	Plague mortality in rural circles for the year 1910.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay ...	*a* 1879	*b* 1892	26·94	27·98	...	...
West Khándesh ...	Dhulia ...	Dhulia ...	...	1896	28·83	32 50	49·53	·09
Ahmednagar ...	Ahmednagar ...	Ahmednagar ...	...	1897	34·17	55 65	31·46	...
Surat ...	Olpád ...	Surat ...	...	1898	23·91	39·77	30·72	·17
Ahmedabad ...	Daskroi ...	Ahmedabad ...	*c* 1893	1891	51·33	45·21	30·08	·81
Karáchi ...	Karáchi ...	Karáchi ...	*c* 1895	1894	30·92	35·15	9·27	...
Sukkur ...	Sukkur ...	Sukkur ...	...	1895	33·27	28·70	21·71	...
Thána ...	Sálsette ...	Bándra ...	...	1896	24 46	23·01	30·3	2·63
Kolába ...	Panvel ...	Panvel ...	...	1895	23·85	19·50	28·87	·69
Dhárwár ...	Hubli ...	Hubli ...	...	1894	23·47	25 70	28 96	4·08
Ahmedabad ...	Viramgám ...	Viramgám ...	*d* 1893	...	38 58	69·23	31·70	1·32
East Khándesh ...	Jalgaon ...	Jalgaon ...	...	1909	31 96	31·56	44·72	3·47

a Drainage works commenced in 1879 are still in progress.

b Tálsa water-works completed in 1892. Besides these there are Vehár and Tulsi Water Works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1910.*

1	2	3			4			5			6	7	8	9		
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1901.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	East Khándesh ..	484,480	472,671	957,151	23,848	25,468	52,316	28·04	26·61	54·65	105·42	10·68	..	25·42	24·11	49 53
2	West Khándesh ...	237,085	232,569	469,654	15,462	14,726	30,188	32·92	31·35	64·27	104 99	20 24	..	27·42	26·46	53·88
3	Násik	412,647	402,702	815,349	20,991	19,876	40,867	25·74	24·36	50·10	105·61	10·06	..	23·38	22·12	45·50
4	Thána	421,931	389,901	810,832	16,285	15,151	31,436	20·02	18·69	38·71	107·15	8·71	..	17·79	16·99	34·78
5	Kolába	304,412	301,095	605,507	11,909	11,216	23,125	19·67	18·53	38·19	106·18	9 03	..	17·49	16·57	34·06
6	City of Bombay ..	600,599*	358,938*	959,537*	10,141	9,502	19,643	16·57	9·90	20·47	106·72	..	15·50	11·65	10·92	22·57
	Central Registration District.															
7	Ahmednagar	417,088	419,779	836,817	20,525	19,432	39,957	24·53	23·22	47·75	105·62	12·67	..	22·49	21·31	43·80
8	Poona	498,248	490,854	989,102	18,878	17,478	36,356	19·09	17·67	36·75	108·01	6·73	..	17·96	16·69	34·65
9	Sholápur	363,113	358,538	721,651	17,511	16,738	34,249	24·27	23·19	47·46	104·62	9·22	..	19·15	18·06	37·21
10	Sátára	568,220	576,746	1,144,966	18,713	18,105	36,818	16·34	15·81	32 15	103·36	6·72	..	16·69	15·62	32·31
11	Ratnágiri	547,499	620,376	1,167,875	21,012	19,633	40,645	17·99	16·81	34·80	107·02	12·19	..	15·62	14·87	30·49
	Southern Registration District.															
12	Belgaum	501,087	491,175	992,262	18,408	17,575	35,983	18·55	17·71	36·26	104·74	9·35	..	17·41	16·79	34·20
13	Dhárwár	560,567	552,045	1,112,612	19,336	18,957	38,293	17·38	17·04	34·42	101·99	6·73	..	16·94	16·24	33·18
14	Bijápur	367,997	367,403	735,400	17,141	16,472	33,613	23·31	22·40	45·71	104·06	13 38	..	20·85	20·10	40·94
15	Kánara	236,003	218,414	454,417	6,960	6,661	13,621	15 32	14·65	29·97	104·49	...	1·58	15·70	15·12	30·81
	Gujarát Registration District.															
16	Surat	317,709	319,173	636,882	12,344	11,696	24,040	19·38	18·36	37·74	105·54	7·74	..	19·14	17·88	37·02
17	Broach	148,504	143,225	291,729	6,895	6,404	13,299	23·63	21·95	45 58	107·67	5·94	..	23·54	22·52	46·05
18	Kaira .. .	375,599	340,654	716,253	15,759	14,337	30,096	22·00	20·02	42·02	109·92	7·81	..	20·91	18·82	39·73
19	Panch Maháls ..	132,035	128,968	261,003	6,950	6,716	13,666	26 63	25·73	52·36	103·48	26 03	..	23·24	22·53	45·77
20	Ahmedabád	407,626	387,718	795,344	15,968	14,513	30,481	20·07	18·25	38·32	110·03	4·27	..	18·12	16·26	34·38
	Sind Registration District.															
21	Karáchi	246,241	196,509	442,750	6,534	5,687	12,221	14·76	12·84	27·60	114·89	6·94	..	13·22	11·49	24·71
22	Hyderabad	543,951	444,524	988,475	9,704	7,088	16,792	9·82	7·17	16·99	136·91	·31	..	9·50	6·84	16·34
23	Thar and Párkar ..	202,707	161,162	363,869	4,863	3,706	8,569	13·36	10·18	23·55	131·22	7·47	..	11·41	8·59	20·00
24	Lárkhána	354,103	301,980	656,083	8,343	6,453	14,796	12·71	9·84	22·55	129·29	·88	..	11·89	9·34	21·23
25	Sukkur	281,592	241,327	522,919	7,710	6,049	13,759	14·74	11·57	26·31	127·46	4·45	..	13·25	10·70	23·96
26	Upper Sind Frontier.	129,838	102,147	231,985	2,809	2,113	4,922	12·11	9·11	21·22	132·94	5·02	..	10 21	7·57	17·78
	Total for the Presidency ..	9,529,472	8,951,890	18,481,362	357,949	331,752	689,701	19·37	17·95	37·32	107·90	7·02	..	17·78	16·47	34·25

* Population according to the Census of 1906.

ANNUAL FORM No. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1910.*

1	2	3	4	5			6		7			8
Serial Number.	Districts.	Area in square miles.	Average population per square mile.	Population (Census 1901).			Births.		Number of Deaths registered.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	East Khándesh	4,545	211·	484,480	472,671	957,151	52,316	54·65	21,532	20,553	42,085	104·76
2	West Khándesh	5,496	85·	237,085	232,569	469,654	30,188	64·27	10,504	10,176	20,680	103·22
3	Násik	5,850	139·	412,647	402,702	815,349	40,867	50·10	16,964	15,683	32,647	108·17
4	Thána	3,573	227·	421,931	388,901	810,832	31,386	38·71	12,516	11,810	24,326	105·98
5	Kolába	2,131	284·	304,412	301,095	605,507	23,125	38 19	8,945	8,716	17,661	102·63
6	City of Bombay	22	43,615·	*600,599	*358,938	*959,537	19,643	20·47	19,108	15,407	34,515	124·02
	Central Registration District.											
7	Ahmednagar...	6,586	127·	417,038	419,779	836,817	39,957	47·75	15,424	13,932	29,356	110·71
8	Poona	5,349	185·	498,248	490,854	989,102	36,356	36·75	15,442	14,198	29,640	108·76
9	Sholápur	4,542	159·	363,113	358,538	721,651	34,249	47·46	14,095	13,499	27,594	104·42
10	Sátára	4,824	237·	568,220	576,746	1,144,966	36,818	32·15	14,691	14,427	29,118	101·83
11	Ratnágiri	3,998	292·	547,499	620,376	1,167,875	40,615	34·80	13,415	12,995	26,410	103·23
	Southern Registration District.											
12	Belgaum	4,669	213·	501,087	491,175	992,262	35,933	36·26	13,496	13,206	26,702	102·19
13	Dhárwár	4,602	242·	560,567	552,045	1,112,612	38,293	34·42	15,688	15,122	30,810	103·74
14	Bijápur	5,669	129·	367,997	367,403	735,400	33,613	45·71	11,917	11,862	23,779	100·46
15	Kánara	3,945	115·	236,003	218,414	454,417	13,621	29·97	7,622	6,714	14,336	113·52
	Gujarát Registration District.											
16	Surat	1,653	385·	317,709	319,173	636,882	24,040	37·74	9,681	9,426	19,107	102·71
17	Broach	1,467	199·	143,504	143,225	291,729	13,299	45·58	5,830	5,733	11,563	101·69
18	Kaira	1,595	449·	375,599	340,654	716,253	30,096	42·02	12,758	11,742	24,500	108·65
19	Panch Mahals	1,606	162·	132,035	128,968	261,003	13,666	52·36	3,493	3,379	6,872	103·37
20	Ahmedabad	3,816	208·	407,626	387,718	795,344	30,481	38·32	13,990	13,103	27,083	106·69
	Sind Registration District.											
21	Karáchi	11,971	37·	246,241	196,509	442,750	12,221	27·60	5,086	4,062	9,148	125·21
22	Hyderabad	8,291	119·	543,951	444,524	988,475	16,792	16·99	9,182	7,303	16,485	125·73
23	Thar and Párkar	13,690	27·	202,707	161,162	363,869	8,569	23·55	3,267	2,584	5,851	126·43
24	Lárkhána	4,762	138·	354,103	301,980	656,083	14,796	22·55	8,033	6,513	14,546	123·34
25	Sukkur	5,731	91·	291,592	241,327	532,919	13,759	26·31	5,974	5,458	11,432	109·45
26	Upper Sind Frontier ...	2,621	81·	129,838	102,147	231,985	4,922	21·22	2,053	1,704	3,757	120·48
	Total for the Presidency...	122,984	150·	9,529,472	8,951,890	18,481,362	689,701	37·22	290,696	269,307	560,003	107·94

1	2	9										10		
Serial Number.	Districts.	Deaths per 1,000 of Population from							All causes.			Mean Ratio of Deaths per 1,000 during previous five years.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.														
1	East Khándesh	·11	·31	3·37	15·58	2·65	4·23	·26	17·46	44·44	43·39	43 97	36·66	35·23	35·95
2	West Khándesh	·00	·13	·05	22·56	1·05	2·92	·34	16·98	44·34	43·75	44·03	35·20	33·49	34·35
3	Násik	·12	·13	·88	15·89	2·05	4·53	·30	16·14	41·11	38·94	40·04	35·85	33·63	34·75
4	Thána	...	·22	1·13	18·91	1·11	·92	·53	7·18	29·66	30·37	30·00	0·99	30·66	30·83
5	Kolába	·04	·89	1·06	16·70	1·52	·63	·33	7·99	29·38	28·94	29·16	31·26	29·71	30·47
6	City of Bombay	·11	1·04	3·80	3·17	3·44	10·88	·71	12·83	31·81	42·92	35·97	44·85	56·70	49·33
	Central Registration District.														
7	Ahmednagar	·17	·15	·01	13·25	7·46	4·72	·28	9·04	36·98	33·15	35·08	31·53	28·68	30·10
8	Poona	·01	·10	·18	15·90	5·79	3·52	·33	4·14	30·99	28·93	29·97	36·05	33·60	34·84
9	Sholápur	·05	·53	·30	19·36	7·25	2·13	·37	8·25	38·81	37·65	38·24	30·71	29·25	29·99
10	Sátára	·01	·04	3·25	10·39	3·70	1·02	·34	6·63	25·85	25·01	25·43	34 74	33·55	34·14
11	Ratnágiri	·01	·29	·24	14·01	2·84	1·77	·41	3·04	24·51	20·94	22·61	22·99	19·90	21 35
	Southern Registration District.														
12	Belgaum	·00	·01	2·80	5·10	3·71	2·58	·36	12·35	26·93	26·89	26·91	31·34	31·01	31·17
13	Dhárwár	·02	...	3·36	7·63	1·16	2·16	·29	13·06	27·09	27·39	27·69	26·32	25·83	26·07
14	Bijápur	·00	·07	·28	12·34	3·79	2·78	·31	12·77	32·38	32·29	32·33	29·63	28·59	29·11
15	Kánara	...	·42	·00	14·17	2·97	·83	·43	12·72	32·29	30·74	31·55	31·48	31·05	31·27
	Gujarát Registration District.														
16	Surat	...	·18	1·65	16·25	·65	7·47	·32	3·47	30·48	29·53	30·00	29·33	28·35	28·85
17	Broach	·00	·02	·00	25·55	·86	6·13	·37	6·71	39·26	40·03	39·64	35·66	36·74	36·09
18	Kaira	1·02	·06	1·83	12·11	1·68	9·52	·42	7·57	33·97	34·47	34·21	36·06	39·09	37·50
19	Panch Mahals	...	·25	·31	21·72	·22	·72	·55	2·56	26·46	26·20	26·33	23·32	23·98	23·65
20	Ahmedabad	·05	·25	·80	22·44	·51	5·93	·41	3·66	34·30	33·79	34·05	40·02	40·83	40·42
	Sind Registration District.														
21	Karáchi	1·10	·14	3·70	8·45	·30	1·19	·41	5·36	20·65	20·67	20·66	24·39	25·16	24·73
22	Hyderabad	·45	·49	·02	13·68	·34	·65	·29	·76	16·38	16·43	16·68	18·00	18·15	18·06
23	Thar and Párkar	·02	·02	...	15·35	·05	·10	·34	·19	16·12	16·03	16·08	20·76	20·57	20·68
24	Lárkhána	1·13	·18	...	19·76	·08	·02	·34	·67	22·69	21·57	22·17	23·34	24·10	23·69
25	Sukkur	·84	·15	·00	17·80	·14	·23	·33	2·38	21·21	22·61	21·86	27·16	28·80	27·92
26	Upper Sind Frontier ...	1·01	·08	...	14·36	·06	...	·30	·39	15·81	16·68	16·20	17·57	19·40	18·37
	Total for the Presidency...	·20	·25	1·35	14·26	2·52	3·24	·37	8·10	30·50	30·08	30·30	31·12	30·58	30·85

* Population according to the Census of 1906.

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the month of the year 1910.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	East Khándesh	2,746	2,963	3,383	3,581	4,404	3,226	3,966	4,738	3,981	3,547	2,959	2,591	42,085	1
2	West Khándesh	1,186	1,161	1,509	2,333	2,592	1,743	1,950	2,137	1,740	1,555	1,425	1,349	20,680	2
3	Násik	2,066	1,774	2,001	2,403	2,675	2,738	3,506	3,847	3,280	3,196	2,675	2,486	32,647	3
4	Thána	2,484	2,133	2,103	1,872	1,692	1,477	1,656	2,055	1,626	1,951	2,642	2,630	24,326	4
5	Kolába	1,897	1,524	1,574	1,414	1,253	1,162	1,429	1,622	1,361	1,172	1,426	1,827	17,661	5
6	City of Bombay	2,704	2,783	3,664	3,612	3,327	2,465	3,005	2,777	2,472	2,528	2,443	2,735	34,515	6
	Central Registration District.														
7	Ahmednagar	1,389	1,251	1,407	1,813	2,736	2,552	3,836	4,003	3,694	3,304	2,210	1,856	29,356	7
8	Poona	1,917	1,695	2,106	2,431	2,361	2,248	2,918	3,352	3,317	2,813	2,397	2,085	29,640	8
9	Sholápur	1,314	1,226	1,606	1,927	2,355	2,173	3,482	3,599	3,088	2,484	2,245	2,095	27,594	9
10	Sátára	2,000	1,850	1,851	1,778	1,861	2,105	2,611	2,942	3,285	3,160	2,904	2,771	29,118	10
11	Ratnágiri	2,324	2,060	2,350	2,185	2,230	1,874	2,288	2,432	2,058	2,129	2,067	2,413	26,410	11
	Southern Registration District.														
12	Belgaum	1,856	1,755	1,888	1,789	1,856	2,131	2,598	2,647	2,503	2,587	2,553	2,539	26,702	12
13	Dhárwar	2,215	2,195	2,049	1,888	1,874	1,711	2,167	2,742	2,779	3,193	3,713	4,284	30,810	13
14	Bijápur	1,403	1,309	1,458	1,448	1,616	1,953	2,909	2,886	2,604	2,206	1,988	1,999	23,779	14
15	Kánara	1,344	1,271	999	955	896	1,028	1,212	1,371	1,200	1,203	1,233	1,624	14,336	15
	Gujarát Registration District.														
16	Surat	1,430	1,558	1,833	1,975	1,288	1,296	1,679	1,795	1,551	1,576	1,823	1,903	19,107	16
17	Broach	776	749	770	701	777	794	1,040	1,132	1,215	1,243	1,208	1,158	11,563	17
18	Kaira	1,401	1,555	2,051	1,790	1,768	1,726	2,778	3,209	2,458	2,136	1,888	1,740	24,500	18
19	Panch Mahális	419	414	507	491	510	450	549	566	631	807	845	683	6,872	19
20	Ahmedabad	2,120	2,273	2,714	2,219	1,935	1,676	2,230	2,621	2,233	2,330	2,356	2,376	27,083	20
	Sind Registration District.														
21	Karáchi	926	880	966	790	754	653	660	686	706	738	745	694	9,148	21
22	Hyderabad	1,711	1,382	1,593	1,420	1,236	1,295	1,192	1,083	1,002	1,278	1,554	1,739	16,485	22
23	Thar and Párkar	613	728	829	561	445	445	343	226	289	349	422	601	5,851	23
24	Lárkhána	1,472	1,292	1,384	1,097	994	1,307	1,194	1,181	817	1,126	1,496	1,186	14,546	24
25	Sukkur	1,046	826	985	742	872	686	815	1,024	740	1,103	1,409	1,184	11,432	25
26	Upper Sind Frontier ...	376	287	335	260	290	209	313	412	256	360	340	319	3,757	26
	Total for the Presidency ...	41,135	38,894	43,920	42,875	43,397	41,123	52,326	57,040	50,886	50,074	48,966	48,867	560,003	
	Ratio of deaths per 1,000 in each month... ...	2·23	2·10	2·38	2·32	2·37	2·22	2·83	3·09	2·75	2·71	2·65	2·64	30·30	

FORM No. IV.

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	East Khándesh	5,903	5,142	6,817	6,884	1,070	1,088	513	550
2	West Khándesh	3,542	3,124	3,620	3,906	488	518	173	173
3	Násik	5,445	4,441	5,000	4,884	813	838	347	384
4	Thána	2,847	2,481	2,150	2,273	750	746	371	337
5	Kolába	2,341	2,021	1,474	1,606	402	454	261	262
6	City of Bombay	4,447	4,109	1,696	1,893	516	644	666	687
	Central Registration District.								
7	Ahmednagar	5,405	4,254	4,020	3,687	503	508	197	199
8	Poona	5,236	4,149	3,417	3,366	507	526	250	311
9	Sholápur	4,304	3,556	4,123	4,066	587	603	300	306
10	Sátára	3,488	3,000	3,262	3,191	764	787	529	602
11	Ratnágiri	2,429	2,001	1,794	1,913	573	643	330	303
	Southern Registration District.								
12	Belgaum	2,851	2,241	2,791	2,996	813	920	567	620
13	Dhárwár	3,563	2,779	2,970	3,015	994	1,033	698	695
14	Bijápur	2,854	2,372	3,106	3,199	654	729	268	253
15	Kánara	1,596	1,446	763	733	255	302	178	165
	Gujarát Registration District.								
16	Surat	2,445	2,088	1,800	1,749	458	523	271	324
17	Broach	1,840	1,645	1,575	1,541	193	235	79	69
18	Kaira	3,006	2,905	3,575	3,022	476	429	343	266
19	Panch Mahás	1,034	952	767	833	268	213	93	84
20	Ahmedabad	4,115	3,752	2,670	2,503	438	399	278	344
	Sind Registration District.								
21	Karáchi	1,376	1,116	553	498	260	239	171	155
22	Hyderabad	1,584	1,508	904	830	524	465	401	248
23	Thar and Párkar	527	456	208	201	132	118	133	107
24	Lárkhána	1,388	1,155	995	870	728	607	403	226
25	Sukkur	1,478	1,368	790	775	335	309	194	180
26	Upper Sind Frontier ...	415	325	227	212	171	132	84	69
	Total for the Presidency ...	75,462	64,386	61,067	60,646	13,612	14,008	8,098	7,919
	Population according to Census of 1901	207,605	202,164	921,002	940,545	1,344,614	1,286,495	1,235,171	1,001,501
	Ratios per 1,000 living ...	363·49	318·48	66·30	64·48	10·12	10·89	6·56	7·91

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1910.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
367	476	964	1,226	1,220	1,104	1,103	818	1,186	835	2,386	2,430	1
130	190	356	428	440	410	479	307	439	256	833	864	2
240	369	765	939	959	876	929	632	870	634	1,596	1,684	3
354	426	981	1,216	1,256	1,177	1,210	827	1,084	771	1,513	1,556	4
234	352	680	924	800	692	720	448	830	600	1,203	1,357	5
1,563	1,269	3,444	2,400	2,401	1,278	1,669	877	1,326	835	1,380	1,415	6
222	331	638	902	612	604	706	542	1,009	809	2,112	2,096	7
378	555	814	944	957	812	846	602	1,163	941	1,874	1,992	8
272	365	610	724	589	612	671	555	801	665	1,838	2,047	9
438	591	946	1,142	1,035	957	1,015	797	1,060	914	2,154	2,446	10
450	429	1,173	1,267	1,021	987	1,137	896	1,392	1,060	3,116	3,496	11
408	407	886	1,088	881	943	1,052	794	1,075	832	2,172	2,365	12
488	546	1,050	1,438	1,167	1,204	1,286	1,027	1,335	1,090	2,137	2,295	13
210	267	543	828	557	562	751	663	926	721	2,048	2,268	14
236	284	688	761	934	701	969	569	922	649	1,081	1,104	15
255	282	656	927	786	879	796	602	749	549	1,465	1,503	16
80	103	301	432	358	419	403	301	424	317	577	671	17
371	295	1,048	1,004	949	1,029	963	838	879	709	1,148	1,245	18
99	96	235	280	276	274	283	169	256	174	242	304	19
550	468	1,328	1,312	1,349	1,191	1,214	988	1,067	996	971	1,150	20
213	222	694	636	571	389	441	256	322	183	485	368	21
411	434	1,154	1,153	1,282	939	1,167	578	773	396	982	747	22
197	121	488	415	494	358	430	281	303	207	355	320	23
353	343	886	996	1,000	839	858	471	594	336	828	670	24
200	257	575	710	625	573	613	403	473	288	691	595	25
86	83	180	250	261	228	206	136	158	95	265	174	26
8,805	9,561	22,083	24,347	22,784	20,037	21,917	15,377	21,416	15,862	35,452	37,164	
779,647	696,954	1,657,754	1,614,771	1,485,004	1,326,932	970,540	904,730	570,008	543,887	381,534	444,739	
11·29	13·75	13·32	15·08	15·34	15·10	22·58	17·00	37·57	29·16	92·91	83·56	

ANNUAL FORM No. V.—DEATHS *registered according to* CLASSES

1	2	3						
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1901.						
		Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	East Khándesh	92,565	853,768	9,101	490	407	820	957,151
2	West Khándesh	26,614	428,341	3,197	331	255	10,916	469,654
3	Násik	43,856	761,471	7,643	1,780	467	132	815,349
4	Thána	36,257	724,418	2,484	42,106	5,238	329	810,832
5	Kolába	29,339	570,661	1,706	1,202	311	2,288	605,507
6	City of Bombay	*155,747	*508,608	*14,248	*29,645	*46,231	*5,996	*760,475
	Central Registration District.							
7	Ahmednagar	43,761	756,527	16,254	19,986	202	87	836,817
8	Poona	45,790	920,885	10,703	8,256	2,342	1,126	989,102
9	Sholápur	54,510	655,691	8,453	1,555	360	18	720,587
10	Sátára	40,888	1,085,398	18,483	975	230	56	1,146,030
11	Ratnágiri	82,825	1,077,745	2,328	4,929	29	19	1,167,875
	Southern Registration District.							
12	Belgaum	78,389	856,560	51,836	5,366	106	5	992,262
13	Dhárwár	141,528	954,431	12,336	4,046	153	118	1,112,612
14	Bijápur	84,416	646,768	3,321	866	29	...	735,400
15	Kánara	29,302	407,420	1,542	16,126	16	11	454,417
	Gujarát Registration District.							
16	Surat	54,191	551,027	11,785	957	12,516	6,406	636,882
17	Broach	63,408	195,922	3,254	685	3,127	25,333	291,729
18	Kaira	68,187	614,146	8,469	25,131	209	111	716,253
19	Panch Mahals	21,349	210,521	1,676	489	130	26,838	261,003
20	Ahmedabad	87,183	665,762	37,790	2,827	1,323	459	795,344
	Sind Registration District.							
21	Karáchi	344,516	93,083	126	2,650	1,841	534	442,750
22	Hyderabad	744,632	242,692	119	192	89	751	988,475
23	Thar and Párkar	211,309	151,726	657	5	4	168	363,869
24	Lárkhána	557,651	97,687	...	115	2	628	656,083
25	Sukkur	379,189	143,299	...	24	64	343	522,919
26	Upper Sind Frontier	209,192	22,765	19	2	...	7	231,985
	Total of the Presidency ...	3,726,594	14,197,322	227,530	170,736	75,681	83,499	18,481,362

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

* Population according to the Census of 1901.

in the BOMBAY PRESIDENCY *during the year 1910.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
2,908	39,139	24	7	3	4	42,085	31·41	45·84	2·63	14·29	7·37	4·87	43·97
754	19,914	3	7	...	2	20,680	28·33	46·49	·93	21.14	...	·18	44·03
1,652	30,918	42	22	9	4	32,647	37·66	40·60	5·49	12·35	19·42	30·30	40·04
1,098	21,972	27	1,172	42	15	24,326	30·28	30·33	10·87	27·83	8.02	45·59	30·00
868	16,696	17	15	1	64	17,661	29·58	29·25	9·96	12·47	3·21	27·97	29·16
8,615	21,809	1,064	1,471	1,333	223	34,515	55·31	42·88	74·68	49·62	28·83	37·19	45·39
1,389	27,577	36	74	2	278	29,356	31·74	36·32	2·21	3·70	9·90	...	35·08
1,213	28,152	74	88	33	80	29,640	26·90	30·58	6·91	10·66	14·09	71·65	29·97
1,656	25,792	115	12	4	15	27,594	30·38	39·32	13·60	7·72	11·11	833·33	38·24
881	27,718	389	6	3	121	29,118	21·55	25·54	21·05	6·15	13·04	...	25·43
2,077	24,218	27	88	...	...	26,410	25·08	22·45	11·60	17·85	...	...	22·61
2,013	23,395	1,154	137	3	...	26,702	25·68	27·31	22·26	25·53	28·30	...	26·91
4,014	26,387	317	92	...	...	30,810	28·36	27·65	25·70	22·74	...	...	27·69
2,536	21,183	47	13	...	...	23,779	30·04	32·75	14·15	15·01	...	...	32·33
841	13,040	56	397	2	...	14,336	28·70	32·01	36·32	24·61	125·00	...	31·55
1,100	15,611	152	15	227	2,002	19,107	20·30	28·33	12·91	15·67	18·14	312·52	30·00
2,185	7,842	69	6	62	1,399	11,563	34·46	40·03	21·20	8·76	19·83	55·22	39·64
2,052	22,206	91	151	...	...	24,500	30·10	36·16	10·75	6·01	...	...	34·21
440	4,737	16	9	...	1,670	6,872	20·61	22·50	9·55	18·40	...	62·23	26·33
2,563	23,511	886	48	35	40	27,083	29·40	35·31	23·45	16·98	26·46	87·15	34·05
5,647	3,388	2	68	23	20	9,148	16·39	36·40	15·87	25·66	12·49	37·45	20·66
10,849	5,625	1	2	1	7	16,485	14·57	23·18	8·40	10·42	11·24	9·32	16·68
2,989	2,840	22	...	...	...	5,851	14·15	18·72	33·49	...	...	...	16·08
11,835	2,711	...	...	...	...	14,546	21·22	27·75	...	...	...	...	22·17
6,795	4,606	5	2	3	21	11,432	17·92	32·14	...	83·33	46·88	61·22	21·86
3,174	583	...	...	...	...	3,757	15·17	25·61	...	...	...	...	16·20
82,144	461,570	4,636	3,902	1,786	5,965	560,003	22·04	32·51	20·37	22·85	23·60	71·44	30·30

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
									INJU		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	East Khándesh ...	910,489	108	294	2,878	14,721	2,461	3,823	3	11	174
2	WestKhándesh ...	434,006	...	58	10	10,339	404	1,182	1	2	95
3	Násik	771,184	96	98	707	12,504	1,529	3,422	11	3	155
4	Thána	762,598	...	169	682	15,072	763	641	23	15	267
5	Kolába	581,621	10	512	573	9,950	888	352	3	7	139
	Central Registration District.										
6	Ahmednagar ...	781,862	139	102	8	10,529	6,119	3,612	3	6	183
7	Poona	821,538	8	86	114	13,215	4,600	2,805	7	1	231
8	Sholápur	590,106	7	71	90	11,603	4,156	1,166	3	2	168
9	Sátára	1,093,985	7	47	3,455	11,631	4,034	1,087	6	15	285
10	Ratnágiri	1,132,815	6	315	282	15,975	3,257	1,978	6	4	206
	Southern Registration District.										
11	Belgaum	936,131	3	5	2,308	4,848	3,432	2,411	12	6	275
12	Dhárwár	976,302	22	...	1,984	8,111	1,095	1,809	16	25	202
13	Bijápur	706,674	1	51	203	9,010	2,762	1,849	12	11	165
14	Kánara	426,825	...	105	1	6,232	1,188	348	6	8	153
	Gujarát Registration District.										
15	Surat	504,854	...	20	971	9,547	247	3,677	9	9	132
16	Broach	238,686	1	4	...	6,997	181	1,226	3	3	56
17	Kaira	646,099	521	38	936	8,010	1,027	5,930	6	9	179
18	Panch Maháls ...	226,115	...	5	4	5,257	31	153	4	4	79
19	Ahmedabad ...	571,357	10	125	574	13,957	156	1,386	6	18	121
	Sind Registration District.										
20	Karáchi	329,850	451	43	6	3,087	45	68	2	1	77
21	Hyderabad... ...	919,652	437	244	18	12,391	74	99	12	2	137
22	Thar and Párkar ...	358,970	7	8	...	5,462	17	37	2	4	41
23	Lárkhána	641,540	732	100	...	12,659	50	7	3	4	157
24	Sukkur	442,538	236	53	1	7,561	46	42	3	5	109
25	Upper Sind Frontier.	221,258	176	14	...	3,191	10	...	8	6	43
	Total of Districts ...	16,027,055	2,978	2,567	15,805	241,859	38,572	39,105	170	181	3,829
	B.—TOWNS.										
	East Khándesh District.										
1	Jalgaon	15,874	...	4	66	65	27	93	...	...	7
2	Chopda	18,612	...	...	2	103	14	52	...	...	5
3	Nasirabad	12,176	...	...	277	25	31	87	...	...	3
	West Khándesh District.										
4	Dhulia	24,726	1	...	16	117	56	162	...	...	7
5	Nandurbár... ...	10,922	...	...	1	143	32	25	1	...	9

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1910.*

		11	12	13										14
RIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
40	228	15,972	40,485	·11	·32	3·16	16·17	2·72	4·19	·25	17·54	44·46	36·09	1
37	185	7,260	19,388	...	·13	·03	23·82	·93	2·73	·31	16·72	44·67		2
48	217	12,515	31,088	·12	·13	·91	16·21	1·98	4·44	·28	16·23	40·31	34·15	3
95	400	5,103	22,830	...	·22	·89	19·76	1·00	·84	·52	6·69	29·94	31·13	4
45	194	4,597	17,076	·04	·89	1·06	16·70	1·52	·63	·33	7·99	29·16	30·72	5
30	222	7,436	28,167	·18	·13	·01	13·47	7·83	4·62	·28	9·51	36·03	29·83	6
47	286	2,726	23,840	·01	·10	·14	16·09	5·60	3·41	·35	3·32	29·02	32·29	7
24	197	3,989	21,279	·01	·12	·15	19·66	7·04	1·98	·33	6·76	36·05	27·67	8
57	363	7,444	28,068	·01	·04	3·16	10·63	3·69	·99	·33	6·81	25·66	34·30	9
247	463	3,422	25,698	·01	·28	·25	14·10	2·88	1·74	·41	3·02	22·69	21·28	10
41	334	11,459	24,800	·00	·01	2·47	5·18	3·67	2·58	·36	12·24	26·49	31·03	11
19	262	12,365	25,648	·02	...	2·03	8·31	1·12	1·85	·27	12·67	26·27	25·21	12
23	211	9,022	23,109	·00	·07	·29	12·75	3·91	2·62	·29	12·77	32·70	29·36	13
22	189	5,487	13,545	...	·24	·00	14·60	2·78	·80	·44	12·86	31·73	31·93	14
36	186	1,491	16,139	·00	·04	1·93	18·91	·49	7·28	·36	2·96	31·97	29 85	15
23	85	1,386	9,880	·00	·02	·00	29·31	·76	5·14	·35	5·81	41·39	36·59	16
75	269	4,807	21,538	·81	·06	1·45	12·40	1·59	9·18	·41	7·44	33·34	37·30	17
47	134	509	6,093	·00	·02	·02	23·25	·16	·66	·59	2·25	26·95	23·43	18
97	242	791	17,241	·02	·22	1·00	24·43	·27	2·43	·42	1·39	30·18	34·72	19
43	123	306	4,129	1·37	·13	·02	9·36	·14	·21	·37	·92	14·52	14·96	20
100	251	332	13,846	·48	·27	·02	13·47	·08	·11	·27	·36	15·06	16·47	21
77	124	70	5,725	·02	·02	...	15·21	·05	·10	·35	·20	15·95	20·42	22
53	217	284	14,049	1·14	·16	...	19·73	·08	·01	·34	·44	21·90	23·31	23
31	148	94	8,181	·53	·12	·00	17·09	·10	·10	·33	·21	18·49	25·14	24
9	66	14	3,471	·80	·06	...	14·42	·05	...	·30	·06	15·69	17·59	25
1,366	5,546	118,881	465,313	·18	·16	·99	15·09	2·41	2·44	·34	7·42	29·03	28·83	
1	8	331	594	...	·25	4·16	4·09	1·70	5·86	·50	20·86	37·42	Not available.	1
...	5	187	363	...	...	·10	5·53	·76	2·79	·27	10·05	19·50	19·83	2
1	4	219	643	...	...	22·75	2·05	2·55	7·14	·33	17·99	52·81	36·72	3
...	7	546	905	·04	...	·64	4·74	2·26	6·55	·28	22·09	36·60	27·08	4
4	14	172	387	...	...	·10	13·09	2·93	2·28	1·28	15 75	35·43	31·13	5

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Násik District.										
6	Násik	21,490	...	8	...	243	88	173	1	...	16
7	Yeola	16,559	...	...	1	165	50	80	...	...	9
8	Devláli Cantonment.	2,894	...	...	...	19	2	5	...	...	1
9	Málegaon do.	3,222	...	...	6	32	3	13	...	...	...
	Thána District.										
10	Thána	15,410	...	7	77	125	45	41	...	...	8
11	Kalyán	10,749	...	...	...	84	28	22	...	...	8
12	Bándra	22,075	...	1	162	49	65	39	1	1	10
	Kolába District.										
13	Panvel	10,152	...	13	15	46	13	20	...	...	1
14	Alibág	5,996	14	1	55	47	15	7	...	...	3
15	Mahád	7,738	...	15	...	64	9	4	1	...	2
16	Bombay City ...	959,537*	106	996	3,641	3,040	3,298	10,436	35	23	623
	Ahmednagar District.										
17	Ahmednagar ...	35,784	1	7	...	413	76	274	1	...	9
18	Sangamner... ...	13,801	...	15	...	128	43	40	...	...	1
19	Ahmednagar Cantonment.	5,370	...	...	...	21	4	24	...	...	...
	Poona District.										
20	Poona	120,543	6	13	9	2,081	964	545	...	1	27
21	Junnar	9,675	...	...	51	68	33	11	...	...	...
22	Poona Cantonment	26,549	...	...	1	282	67	87	2	1	2
23	Kirkee do. ...	10,797	...	...	...	80	58	37	...	...	2
	Sholápur District.										
24	Sholápur	74,898	...	313	124	1,325	685	244	1	...	37
25	Bársi	24,242	...	...	...	339	173	44	...	...	4
26	Pandharpur ...	32,405	32	...	3	702	214	85	1	2	22
	Sátára District.										
27	Sátára	25,493	1	...	111	163	132	40	...	1	10
28	Wái	13,989	...	...	144	50	21	17	...	1	4
29	Karád	11,499	...	1	12	58	53	20	...	...	4
	Ratnágiri District.										
30	Vengurla	19,018	...	17	1	234	34	79	...	...	7
31	Ratnágiri	16,042	...	7	...	155	31	15	...	...	4

* Population according to the Census of 1906.

VI—*continued.*

		11	12	13										14
BIES.				Ratio of Deaths per 1,000 of Population.										
Sanke-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	17	419	948	...	·37	...	11·30	4·09	8·05	·79	19·49	44·11	58·07	6
...	9	187	492	...	...	·06	9·96	3·02	4·85	·54	11·29	29·71	56·96	7
...	1	24	51	...	...	...	6·56	·69	1·73	·35	8·29	17·62	17·55	8
...	...	14	68	...	...	1·86	9·96	·93	4·03	...	4·34	21·10	28·86	9
...	8	239	542	...	·45	5·00	8·11	2·92	2·66	·52	15·51	35·17	38·55	10
...	8	123	265	...	...	...	7·81	2·61	2·05	·74	11·44	24·65	39·72	11
...	12	361	689	...	·05	7·34	2·22	2·94	1·77	·54	16·35	31·21	Not available.	12
1	2	141	250	...	1·28	1·48	4·53	1·28	1·97	·19	13·89	24·62	28·07	13
	3	50	192	2·33	·17	9·17	7·84	2·50	1·17	·50	8·34	32·02	24·01	14
...	3	48	143	...	1·94	...	8·27	1·16	·52	·39	6·20	18·48	21·58	15
3	684	12,314	34,515	·11	1·04	3·80	3·17	3·44	10·88	·71	12·83	35·97	49·33	16
...	10	36	817	·03	·20	...	11·54	2·12	7·66	·28	1·00	22·83	38·31	17
...	1	79	306	...	1·09	...	9·27	3·12	2·90	·07	5·72	22·17	29·79	18
...	...	17	66	...	...	...	3·91	·74	4·47	...	3·17	12·29	12·65	19
2	30	1,110	4,758	·05	·11	·07	17·26	8·00	4·52	·25	9·21	39·47	52·69	20
...	...	12	175	...	...	5·27	7·03	3·41	1·14	...	1·24	18·09	24·39	21
...	5	217	659	...	...	·04	10·62	2·52	3·28	·19	8·17	24·82	37·18	22
1	3	30	208	...	...	...	7·41	5·37	3·42	·28	2·78	19·26	32·50	23
3	41	1,114	3,846	...	4·18	1·66	17·68	9·15	3·26	·55	14·87	51·35	41·56	24
...	4	537	1,097	...	...	...	13·98	7·14	1·81	·17	22·15	45·25	34·24	25
1	26	310	1,372	·99	...	·09	21·66	6·60	2·62	·80	9·57	42·33	43·03	26
1	12	147	606	·04	...	4·35	6·39	5·18	1·57	·47	5·77	23·77	33·22	27
1	6	26	264	...	..	10·29	3·57	1·50	1·22	·43	1·86	18·87	28·45	28
1	5	31	180	...	0·09	1·04	5·04	4·61	1·74	·43	2·70	15·65	25·46	29
...	7	77	449	...	·89	·05	12·30	1·79	4·15	·37	4·05	23·60	23·82	30
1	5	50	263	...	·44	...	9·66	1·93	·93	·31	3·12	16·39	23·56	31

FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Belgaum District.										
32	Belgaum	26,237	...	...	335	90	58	47	...	...	5
33	Gokák	9,860	...	...	82	53	63	20	1	...	8
34	Athni	11,107	...	1	34	41	114	42	...	...	8
35	Belgaum Cantonment.	8,927	...	...	21	18	11	42	...	...	1
	Dhárwár District.										
36	Dhárwár	30,593	...	...	241	128	37	88	1	...	13
37	Hubli	60,214	...	...	1,365	131	85	348	...	...	28
38	Gadag-Bettigeri ...	30,652	...	...	102	63	49	130	...	...	20
39	Ránebennur ...	14,851	...	...	59	61	28	30	...	...	1
	Bijápur District.										
40	Bijápur	28,776	...	...	...	31	16	190	1	1	11
41	Kaládgi	4,950	...	...	...	34	11	7	...	...	1
	Kánara District.										
42	Kárwár	16,774	...	86	...	107	70	14	1	...	3
43	Kumta	10,818	...	1	...	102	93	18	...	...	2
	Surat District.										
44	Surat	119,171	...	83	3	702	129	938	...	...	11
45	Bulsár	12,857	...	12	80	101	39	142	...	...	4
	Broach District.										
46	Broach	42,862	...	1	1	321	59	481	1	1	14
47	Jambusar	10,181	...	...	...	134	11	82	...	...	3
	Kaira District.										
48	Kaira	10,313	7	...	...	63	8	156	...	...	3
49	Nadiád	31,435	193	2	364	377	79	446	2	3	9
50	Borsad	13,001	3	...	5	95	40	143	1	1	3
51	Kapadvanj	15,405	7	...	5	132	48	141	...	...	4
	Panch Mahals District.										
52	Godhra	20,898	...	60	...	150	24	32	...	...	4
53	Dohad	13,990	...	...	76	263	3	2	1	...	4
	Ahmedabad District.										
54	Ahmedabad ...	181,774	30	67	52	3,318	221	3,059	1	1	62
55	Gogha	4,798	...	3	3	54	6	68	...	...	1
56	Viramgám	18,952	...	...	10	277	4	148	...	...	3
57	Dholka	14,971	...	...	...	226	21	56	...	1	11
58	Ahmedabad Cantonment.	3,492	...	...	...	12	...	...	...	...	...

VI—*continued.*

		11	12	13										14
RIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	5	418	962	...	...	12·77	3·77	2·21	1·79	0·19	15·93	36·66	33·73	32
...	9	109	336	...	...	8·32	5·38	6·39	2·03	0·91	11·05	34·08	36·21	33
2	10	184	426	...	0·09	3·06	3·69	10·26	3·78	0·90	16·57	38·35	40·06	34
...	1	85	178	...	...	2·35	2·02	1·23	4·71	0·11	9·52	19·94	21·96	35
1	15	501	1,010	...	...	7·88	4·18	1·21	2·88	0·49	16·38	33·01	39·06	36
...	28	989	2,936	...	...	22·50	2·18	1·41	5·78	0·47	16·42	48·76	33·66	37
...	20	406	770	...	...	3·33	2·06	1·60	4·24	0·65	13·25	25·12	26·29	38
...	1	267	446	...	...	3·97	4·11	1·89	2·02	0·07	17·98	30·03	24·58	39
...	13	317	567	...	...	...	1·30	0·67	7·99	0·54	13·33	23 85	23·51	40
...	1	50	103	...	...	...	6·87	2·22	1·41	0·20	10·10	20·81	20·61	41
...	4	138	419	...	5·13	...	6·38	4·17	0·83	0·24	8·23	24·98	17·11	42
...	2	156	372	...	·09	...	9·43	8·59	1·66	0·18	14·42	34·39	27·18	43
2	13	618	2,486	...	·70	·03	5·89	1·08	7·87	0·11	5·18	20·86	25·01	44
...	4	104	482	...	·93	6·22	7·86	3·03	11·05	0·31	8·09	37·49	24·92	45
2	18	535	1,416	...	·02	·03	7·49	1·38	11·22	0·42	12·48	33·04	34·66	46
1	4	36	267	...	...	...	13·16	1·08	8·05	0·39	3·54	26·22	30·37	47
2	5	53	292	·68	...	...	6·11	0·77	15·13	0·48	5·14	28·31	31·92	48
...	14	368	1,843	6·14	·06	11·58	11·99	2·51	14·19	0·45	11·71	58·63	41·56	49
1	6	108	400	·25	...	·39	7·31	3·08	11·00	0·46	8·30	30·77	37·63	50
...	4	90	427	·45	...	·33	8·57	3·12	9·15	0·26	5·84	27·72	41·03	51
...	4	88	358	...	2·87	...	7·18	1·15	1·53	0·19	4·21	17·13	21·33	52
...	5	72	421	...	...	5·43	18·80	0·22	0·14	0·35	5·15	30·09	30·71	53
4	68	1,751	8,566	·16	0·37	·29	18·32	1·22	16·89	·37	9·67	47·29	57·13	54
...	1	15	150	...	·63	·63	11·25	1·25	14·17	·21	3·12	31·26	40·31	55
...	3	226	668	...	...	·53	14·62	0·21	7·81	·16	11·92	35·25	48·44	56
1	13	126	442	...	...	...	15·09	1·40	3·74	·87	8·42	29·52	53·85	57
...	...	4	16	...	..	...	2·92	...	...	...	·97	3·89	10·45	58

FORM No.

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Karáchi District.										
59	Karáchi	112,900	38	19	1,634	655	90	457	4	2	51
	Hyderabad District.										
60	Hyderabad ...	68,823	8	235	1	1,131	261	547	...	...	31
	Thar and Párkar District.										
61	Umarkot	4,899	...	...	...	124	...	...	1	...	1
	Lárkhána District.										
62	Lárkhána	14,543	10	16	...	306	1	4	...	...	6
	Sukkur District.										
63	Shikárpur	49,491	86	24	...	1,065	11	45	1	1	6
64	Sukkur	30,890	115	...	...	684	14	31	...	...	16
	Upper Sind Frontier District.										
65	Jacobabad	10,727	58	5	...	140	3	...	...	...	3
	Total of Towns ...	2,653,369	716	2,033	9,238	21,664	8,071	20,775	60	41	1,196
	Total for the Presidency ...	18,481,362	3,694	4,600	25,043	263,523	46,643	59,880	230	222	5,025

N. B.—Total population of towns include population of Bombay City (959,537) according to the Census of 1906 ; but in

VI—*concluded.*

		11	12	13									14
RIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.									
Snake-bite or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	57	2,069	5,019	·34	·17	14·47	5·80	·80	4·05	·51	18·31	44·46	53·29	59
2	33	423	2,639	·12	3·41	·01	16·43	3·81	7·95	·48	6·15	38·34	39·40	60
...	2	a.	126	...	...	...	25·31	...	...	·41	...	25·72	39·80	61
...	6	154	497	·69	1·10	...	21·04	·07	·28	·41	10·59	34·17	40·43	62
3	11	1,016	2,258	1·74	·48	...	21·52	·22	·91	·22	20·53	45·62	48·35	63
...	16	133	993	3·72	...	...	22·14	·45	1·00	·52	4·31	32·15	34·87	64
...	3	77	286	5·41	·47	...	13·05	·28	...	·28	7·18	26·66	34·59	65
42	1,339	30,854	94,690	·27	·77	3·48	8·16	3·04	7·83	·50	11·63	35·69	42·37	
1,408	6,885	149,735	560,003	·20	·25	1·35	14·26	2·52	3·24	·37	8·10	30·30	30·85	

the total population of the Presidency the population of Bombay City (760,475) according to the Census of 1901 is retained.

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1910.*

No.	Districts.	Circles of Registration. Number in each District.	Circles of Registration. Number from which deaths from Cholera were reported.	Villages. Number in each District.	Villages. Number from which deaths from Cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Ratio of Deaths per 1,000 of Population. Male.	Ratio of Deaths per 1,000 of Population. Female.	Ratio of Deaths per 1,000 of Population. Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh ...	16	1	1,459	10	...	...	...	...	...	...	...	7	29	57	15	...	50	58	108	·10	·12	·11	1·03	1
2	West Khándesh ...	10	7	1,186	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	·00	...	·00		2
3	Násik	16	6	1,649	10	...	...	...	...	1	...	...	8	40	40	1	6	53	43	96	·12	·10	·12	1·81	3
4	Thána	12	...	1,633	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·39	4
5	Kolába	11	2	1,484	2	...	...	...	...	...	...	...	...	...	...	4	20	9	15	24	·03	·05	·04	1·96	5
6	City of Bombay ...	1	1	1	1	6	3	3	5	1	2	16	9	6	9	4	42	81	25	106	·13	·07	·11	·59	6
	Central Registration District.																								
7	Ahmednagar	14	6	1,355	18	...	...	...	...	1	...	1	...	33	88	11	6	66	74	140	·16	·18	·17	1·02	7
8	Poona	12	5	1,191	6	...	...	...	...	1	1	4	2	...	...	5	1	8	6	14	·01	·01	·01	1·89	8
9	Sholápur	10	2	720	2	...	...	...	...	...	...	...	...	...	...	31	8	20	19	39	·05	·05	·05	1·81	9
10	Sátára	15	5	1,344	8	...	1	2	...	...	1	3	...	...	...	1	...	4	4	8	·01	·01	·01	1·53	10
11	Ratnágiri	10	2	1,308	2	...	...	...	...	...	...	3	...	...	...	...	3	3	3	6	·01	·01	·01	·09	11
	Southern Registration District.																								
12	Belgaum	11	2	1,077	2	1	...	2	...	...	...	...	...	...	...	...	...	2	1	3	·00	·00	·00	1·95	12
13	Dhárwár	17	3	1,302	4	...	...	...	...	...	...	5	14	3	...	...	...	8	14	22	·01	·03	·02	1·39	13
14	Bijápur...	10	1	1,118	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	·00	...	·00	2 52	14
15	Kánara...	13	...	1,289	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·57	15
	Gujarát Registration District.																								
16	Surat	10	...	778	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·37	16
17	Broach...	8	1	410	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	·00	...	·00	·13	17
18	Kaira	11	10	609	57	...	...	...	...	...	2	280	352	93	4	...	...	373	358	731	·99	1·05	1·02	·13	18
19	Panch Mahéls ...	7	...	693	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	19
20	Ahmedabad	12	2	874	6	...	...	...	...	...	...	11	24	3	2	...	...	30	10	40	·07	·03	·05	·11	20
	Sind Registration District.																								
21	Karáchi	11	7	633	94	...	...	...	...	1	6	108	17	60	166	127	4	284	205	489	1·15	1·04	1·10	·46	21
22	Hyderabad	14	10	1,412	76	...	...	...	...	11	215	62	48	27	70	8	4	300	145	445	·55	·33	·45	·21	22
23	Thar and Párkar ...	12	3	669	4	...	...	...	...	...	...	3	4	...	...	...	...	6	1	7	0·3	·01	03	·02	23
24	Lárkhána	11	10	718	110	...	...	...	...	...	292	210	218	22	...	...	...	455	287	742	1·28	·95	1·13	·23	24
25	Sukkur...	10	7	611	24	...	...	...	10	83	20	51	200	52	21	...	...	244	193	437	·87	·80	·84	·20	25
26	Upper Sind Frontier ...	5	4	391	41	...	...	...	...	...	...	80	118	22	14	...	...	134	100	234	1 03	·98	1·01	·08	26
	Total for the Presidency.	289	97	25,909	480	7	4	7	15	99	539	838	1,021	391	471	207	95	2,133	1,561	3,694	·22	·17	·20	·97	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1910.*

No.	Districts.	Circles of Registration. Number in each District.	Circles of Registration. Number from which deaths from Small-pox were reported.	Villages. Number in each District.	Villages. Number from which deaths from Small-pox were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Number of these Deaths among Children. Under 1 year.	Number of these Deaths among Children. Under 10 years.	Ratio of Deaths per 1,000 of Population. Male.	Ratio of Deaths per 1,000 of Population. Female.	Ratio of Deaths per 1,000 of Population. Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																										
1	East Khándesh ...	16	12	1,459	90	15	51	106	71	35	5	9	5	...	...	...	1	155	143	298	89	168	·32	·30	·31	1·32	1
2	West Khándesh ...	10	4	1,186	21	1	12	16	16	6	5	...	1	1	...	...	...	24	34	58	21	31	·10	·15	·13		2
3	Násik	16	10	1,649	50	17	21	20	5	16	10	8	...	1	1	3	4	56	50	106	41	34	·13	·12	·13	·32	3
4	Thána	12	11	1,633	68	16	20	34	12	19	14	8	11	6	3	6	28	80	97	177	50	107	·19	·25	·22	·30	4
5	Kolába	11	11	1,484	138	45	63	59	53	54	44	38	43	32	24	32	54	255	286	541	199	291	·83	·95	·89	·35	5
6	City of Bombay ...	1	1	1	1	76	135	303	259	139	51	15	5	4	3	...	6	566	430	996	264	278	·94	1·20	1·04	·96	6
	Central Registration District.																										
7	Ahmednagar	14	13	1,355	47	14	22	16	16	13	11	5	2	4	6	7	8	63	61	124	38	56	·16	·15	·15	·15	7
8	Poona	12	9	1,191	33	6	11	15	15	10	9	8	7	3	1	5	9	56	43	99	41	41	·12	·08	·10	·30	8
9	Sholápur	10	8	720	34	15	29	31	72	88	39	31	26	...	2	1	...	197	187	384	96	236	·54	·52	·53	·23	9
10	Sátára	15	10	1,344	25	5	4	4	5	6	5	6	10	1	...	...	2	25	23	48	8	16	·04	·04	·04	·10	10
11	Ratnágiri	10	10	1,308	128	14	32	51	59	71	43	23	21	8	10	2	5	178	161	339	83	141	·33	·26	·29	·19	11
	Southern Registration District.																										
12	Belgaum	11	4	1,077	5	1	2	...	...	1	1	1	...	...	...	...	...	3	3	6	1	4	·01	·01	·01	·13	12
13	Dhárwar...	17	...	1,302	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·17	13
14	Bijápur	10	6	1,118	25	2	3	3	6	9	1	3	2	...	2	3	17	21	30	51	7	31	·06	·08	·07	·25	14
15	Kánara	13	11	1,289	34	...	3	7	10	21	28	37	17	26	10	13	20	105	87	192	49	61	·44	·40	·42	·46	15
	Gujarát Registration District.																										
16	Surat	10	7	778	16	1	2	16	33	27	12	11	9	...	2	...	2	56	59	115	25	51	·18	·18	·18	·10	16
17	Broach	8	3	410	5	...	...	1	2	...	1	...	...	1	...	...	...	4	1	5	3	1	·03	·01	·02	·16	17
18	Kaira	11	6	609	13	...	...	1	4	5	9	5	3	...	1	1	11	25	15	40	12	24	·07	·04	·06	·11	18
19	Panch Mahéls ...	7	3	693	5	...	...	2	9	29	19	6	...	...	...	...	...	30	35	65	24	38	·23	·27	·25	·15	19
20	Ahmedabad	12	8	874	44	14	20	62	30	16	9	...	4	6	2	4	28	97	98	195	67	85	·24	·25	·25	·43	20
	Sind Registration District.																										
21	Karáchi	11	4	633	19	1	1	7	9	21	2	5	4	2	2	1	7	34	28	62	7	27	·14	·14	·14	·28	21
22	Hyderabad	14	13	1,412	40	8	19	75	131	109	41	29	2	15	15	20	15	237	242	479	70	88	·44	·54	·49	·17	22
23	Thar and Párkar ...	12	4	669	6	...	...	...	2	2	...	2	...	2	...	...	...	5	3	8	...	2	·02	·02	·02	·08	23
24	Lárkhána...	11	8	718	21	20	19	16	11	8	7	6	6	5	...	12	6	58	58	116	7	12	·16	·19	·18	·04	24
25	Sukkur	10	4	611	7	...	...	1	1	...	2	13	7	14	2	18	19	34	43	77	17	30	·12	·18	·15	·23	25
26	Upper Sind Frontier ...	5	4	391	4	...	...	3	1	...	1	2	8	1	...	1	2	10	9	19	1	1	·08	·09	·08	·07	26
	Total for the Presidency.	289	184	25,909	884	271	469	899	832	705	369	271	193	132	86	129	244	2,374	2,226	4,600	1,220	1,854	·25	·25	·25	·33	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVERS *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1910.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from fevers were reported.	Number in each District.	Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,459	1,269	791	805	1,053	1,345	1,603	1,162	1,426	1,762	1,529	1,375	1,138	922	7,482	7,432	14,914	15·44	15·72	15·58	13·17	1
2	West Khándesh ...	10	10	1,186	1,046	564	557	763	1,095	1,265	909	1,053	1,139	943	841	791	679	5,275	5,324	10,599	22·24	22·87	22·56		2
3	Násik	16	16	1,649	1,513	905	780	843	983	1,087	1,067	1,318	1,460	1,269	1,152	1,128	980	6,543	6,420	12,963	15·85	15·94	15·89	12·78	3
4	Thána	12	12	1,633	1,547	1,629	1,287	1,308	1,171	1,012	869	883	1,207	971	1,276	1,914	1,803	7,820	7,510	15,330	18·53	19·31	18·91	18·56	4
5	Kolába	11	11	1,484	1,371	1,193	918	925	859	716	607	712	563	691	587	847	1,186	5,052	5,055	10,107	16·60	16·79	16·70	16·31	5
6	City of Bombay ...	1	1	1	1	224	250	260	222	233	223	284	233	224	326	301	260	1,935	1,105	3,040	3·22	3·08	3·17	3·74	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,355	1,217	549	514	549	782	853	969	1,389	1,545	1,234	1,177	827	703	5,727	5,364	11,091	13·73	12·78	13·25	10·40	7
8	Poona	12	12	1,191	1,191	1,039	883	1,053	1,391	1,359	1,232	1,556	1,706	1,707	1,384	1,278	1,138	8,091	7,635	15,726	16·24	15·55	15·90	12·49	8
9	Sholápur	10	10	720	703	535	545	852	993	1,354	1,179	1,947	1,789	1,542	1,193	1,104	906	7,144	6,825	13,969	19·67	19·04	19·36	12·98	9
10	Sátára	15	15	1,344	1,172	707	705	798	922	868	938	1,128	1,154	1,207	1,158	1,133	1,184	6,169	5,733	11,902	10·85	9·94	10·40	10·40	10
11	Ratnágiri	10	10	1,308	1,276	1,461	1,363	1,589	1,326	1,383	1,190	1,335	1,378	1,257	1,307	1,365	1,500	8,186	8,178	16,364	14·95	13·18	14·01	12·80	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	911	342	367	449	379	453	417	476	434	410	417	485	430	2,591	2,468	5,059	5·11	5·02	5·10	5·18	12
13	Dhárwár	17	17	1,302	1,164	735	766	699	555	563	509	624	628	713	702	920	1,080	4,281	4,213	8,494	7·64	7·63	7·63	6·49	13
14	Bijápur	10	10	1,118	1,035	470	445	594	633	727	769	1,022	953	913	899	830	820	4,540	4,535	9,075	12·34	12·34	12·34	8·94	14
15	Kánara	13	13	1,289	1,033	662	655	505	465	386	404	506	488	508	555	554	768	3,326	3,115	6,441	14·09	14·45	14·17	14·01	15
	Gujarát Registration District.																								
16	Surat	10	10	778	733	736	783	912	728	771	675	833	940	830	946	1,087	1,109	5,136	5,164	10,350	16·32	16·18	16·25	14·85	16
17	Broach	8	8	410	390	477	503	506	450	483	466	623	703	839	851	816	735	3,695	3,757	7,452	24·83	26·23	25·55	20·75	17
18	Kaira	11	11	609	568	474	582	811	737	686	622	902	986	856	773	661	607	4,532	4,145	8,677	12·06	12·17	12·11	12·12	18
19	Panch Mahals ...	7	7	693	583	332	329	422	407	404	357	456	461	521	722	730	529	2,874	2,796	5,670	21·77	21·68	21·72	17·44	19
20	Ahmedabad ...	12	12	874	836	1,448	1,511	1,722	1,474	1,323	1,058	1,407	1,698	1,462	1,569	1,572	1,597	9,319	8,525	17,844	21·86	21·99	22·44	26·77	20
	Sind Registration District.																								
21	Karáchi	11	11	633	633	444	429	421	282	259	248	232	195	280	287	332	343	2,045	1,697	3,742	8·30	8·64	8·45	11·04	21
22	Hyderabad ...	14	14	1,412	1,412	1,520	1,215	1,343	1,137	963	880	930	855	789	1,040	1,341	1,501	7,574	5,948	13,522	13·92	13·38	13·68	15·41	22
23	Thar and Párkar...	12	12	669	669	595	712	811	544	427	415	299	199	273	334	411	566	3,110	2,476	5,586	15·34	15·36	15·35	19·77	23
24	Lárkhána	11	11	713	713	1,380	1,232	1,331	1,043	957	921	900	872	725	1,054	1,424	1,123	7,165	5,800	12,965	20·23	19·21	19·76	22·14	24
25	Sukkur	10	10	611	611	906	713	869	618	649	527	623	656	551	958	1,256	976	4,892	4,428	9,320	17·34	18·35	17·80	24·65	25
26	Upper Sind Frontier	5	5	391	391	354	273	328	246	279	197	219	253	220	336	322	309	1,818	1,513	3,331	14·00	14·81	14·36	17·30	26
	Total for the Presidency ...	289	289	25,909	23,992	20,492	19,102	21,715	20,777	21,069	18,720	23,072	24,570	22,463	23,219	24,570	23,754	136,362	127,161	263,523	14·81	14·20	14·26	13·50	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1910.*

1	2	3		4		5												6			7			8	N
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	
		Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,459	548	81	63	75	94	147	174	432	611	399	223	143	91	1,274	1,259	2,533	2·63	2·66	2·65	7·71	1
2	West Khándesh ...	10	10	1,186	162	11	13	11	40	19	42	77	147	63	37	16	11	253	239	492	1·06	1·03	1·05		2
3	Násik	16	16	1,649	479	63	49	56	69	83	120	250	359	255	173	96	89	916	756	1,672	2·22	1·87	2·05	2·56	3
4	Thána	12	12	1,633	301	65	60	47	93	43	39	104	170	71	80	55	69	480	421	901	1·14	1·08	1·11	1·17	4
5	Kolába... ...	11	11	1,484	422	73	48	50	35	46	52	138	175	104	75	54	75	515	410	925	1·69	1·36	1·52	1·76	5
6	City of Bombay ...	1	1	1	1	245	239	288	231	219	229	404	391	270	248	240	296	1,808	1,490	3,298	3·01	4·15	3·44	4·02	6
	Central Registration District.																								
7	Ahmednagar	14	14	1,355	967	175	138	134	185	388	602	1,121	1,222	991	706	317	263	3,412	2,830	6,242	8·18	6·74	7·46	5·19	7
8	Poona	12	12	1,191	881	223	204	225	379	370	456	717	959	877	549	462	301	2,107	2,625	5,722	6·24	6·33	5·79	4·49	8
9	Sholápur	10	10	720	627	255	241	251	164	180	308	724	969	781	470	530	355	2,674	2,554	5,228	7·36	7 09	7·25	5·55	9
10	Sátára	15	15	1,344	794	171	123	141	181	308	357	547	619	580	456	402	356	2,121	2,119	4,240	3 73	3·67	3·70	4·22	10
11	Ratnágiri	10	10	1,308	896	291	234	287	270	269	211	360	419	242	232	283	255	1,814	1,508	3,322	3·31	2·43	2·84	1·64	11
	Southern Registration District.																								
12	Belgaum	11	11	1,077	633	113	118	140	205	248	395	555	587	480	372	279	186	1,820	1,858	3,678	3·63	3·78	3·71	3·84	12
13	Dhárwár	17	17	1,302	369	57	66	69	71	93	117	146	204	172	136	112	51	647	647	1,294	1·16	1·16	1·16	1·33	13
14	Bijápur	10	10	1,118	605	99	73	71	81	92	189	452	587	492	303	201	149	1,353	1,431	2,789	3·69	3·89	3·79	3·25	14
15	Kánara	13	13	1,289	318	68	75	44	62	82	99	108	228	190	143	131	121	772	579	1,351	3·27	2·56	2·97	2·39	15
	Gujarát Registration District.																								
16	Surat	10	10	778	97	24	25	22	21	21	23	68	79	47	33	25	27	234	181	415	·74	·56	·65	·51	16
17	Broach...	8	8	410	88	4	7	4	8	10	19	52	54	41	16	17	19	139	112	251	·94	·78	·86	·67	17
18	Kaira	11	11	609	222	34	31	49	57	85	143	222	254	131	84	65	47	662	540	1,202	1·76	1·59	1·68	1·16	18
19	Panch Mahals ...	7	7	693	19	4	4	2	2	4	5	12	6	10	1	4	4	40	18	58	·30	·14	·22	·37	19
20	Ahmedabad ...	12	12	874	74	25	20	25	16	20	28	63	78	33	38	34	28	214	194	408	·52	·50	·51	·48	20
	Sind Registration District.																								
21	Karáchi	11	8	633	18	13	11	8	3	8	8	13	21	22	12	10	6	68	67	135	·28	·34	·30	·38	21
22	Hyderabad	14	12	1,412	30	46	32	30	27	10	19	28	29	22	23	31	38	194	141	335	·36	·32	·34	·52	22
23	Thar and Párkar ...	12	2	669	8	2	...	...	...	...	...	14	...	1	...	...	...	6	11	17	·03	·07	·05	·05	23
24	Lárkhána	11	8	713	21	2	...	...	...	4	21	10	10	1	1	1	1	31	20	51	·09	·07	·08	·05	24
25	Sukkur...	10	8	611	15	11	6	10	7	5	8	3	10	4	2	2	3	47	24	71	·17	·10	·14	·17	25
26	Upper Sind Frontier .	5	5	391	8	2	...	...	1	1	...	2	3	2	...	2	...	10	3	13	·08	·03	·06	·05	26
	Total for the Presidency ...	289	269	25,909	8,603	2,157	1,830	2,039	2,316	2,765	3,664	6,622	8,191	6,286	4,411	3,512	2,800	24,616	22,027	46,643	2·58	2·46	2·52	2·67	

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1910.*

1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh ...	16	16	1,459	876	323	364	403	365	310	205	266	373	359	341	350	396	2,090	1,965	4,055	4·31	4·16	4·23	3·17	1
2	West Khándesh...	10	10	1,186	456	121	120	139	101	79	74	96	103	117	124	121	174	744	625	1,369	3·13	2·69	2·92		2
3	Násik ...	16	16	1,649	983	259	235	255	311	246	226	337	322	352	437	375	338	1,848	1,845	3,693	4·47	4·58	4·53	3·25	3
4	Thána ...	12	12	1,633	282	62	71	70	51	50	38	62	65	62	71	62	79	400	343	743	·94	·90	·92	·78	4
5	Kolába ...	11	11	1,484	209	36	27	32	27	21	25	37	40	42	35	33	28	209	174	383	·69	·58	·63	·76	5
6	City of Bombay...	1	1	1	1	920	870	995	856	890	782	891	843	819	810	834	926	5,505	4,931	10,436	9·16	13·74	10·88	13·33	
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,355	862	236	283	218	288	281	292	415	427	434	421	361	344	1,969	1,981	3,950	4·72	4·72	4·72	3·87	
8	Poona ...	12	12	1,191	771	279	266	209	267	250	238	292	357	397	361	295	274	1,796	1,689	3,485	3·60	3·44	3·52	3·60	8
9	Sholápur ...	10	10	720	399	124	124	146	97	95	94	127	113	127	152	160	180	731	808	1,539	2·01	2·25	2·13	1·61	9
10	Sátára ...	15	15	1,344	379	78	87	76	74	62	90	88	92	140	116	128	133	520	644	1,164	·92	1·12	1·02	·81	10
11	Ratnágiri ...	10	10	1,308	682	214	175	172	157	145	121	138	162	162	187	200	239	1,061	1,011	2,072	1·94	1·63	1·77	1·67	11
	Southern Registration District.																								
12	Belgaum ...	11	11	1,077	634	211	243	226	205	175	199	206	204	238	194	211	250	1,369	1,193	2,562	2·73	2·43	2·58	2·28	12
13	Dhárwár ...	17	17	1,302	604	212	214	210	177	164	133	176	213	221	221	220	244	1,121	1,294	2,405	2·00	2·33	2·16	1·94	13
14	Bijápur ...	10	10	1,118	493	184	185	185	151	143	155	161	155	179	152	164	199	1,074	972	2,046	2·92	2·65	2·78	2·47	14
15	Kánara ...	13	13	1,289	184	38	40	35	30	18	29	25	24	39	25	32	40	223	152	375	·94	·70	·83	·85	15
	Gujarát Registration District.																								
16	Surat ...	10	10	778	549	435	412	452	361	298	347	402	426	373	365	420	466	2,526	2,231	4,757	7·95	6·99	7·47	7·42	16
17	Broach ...	8	8	410	240	154	129	120	126	137	127	159	180	140	176	159	182	1,015	774	1,789	6·84	5·40	6·13	6·54	17
18	Kaira ...	11	11	609	512	423	462	565	567	560	487	722	786	610	624	528	482	3,745	3,071	6,816	9·97	9·02	9·52	9·40	18
19	Panch Mahals ...	7	7	693	85	18	14	18	20	16	10	12	18	20	12	16	13	124	63	187	·94	·49	·72	·69	19
20	Ahmedabad ...	12	11	874	286	351	366	460	429	344	345	454	442	363	388	400	375	2,507	2,210	4,717	6·15	5·70	5·93	4·86	20
	Sind Registration District.																								
21	Karáchi ...	11	9	633	27	42	35	50	43	30	50	35	40	49	44	49	58	288	237	525	1·17	1·21	1·19	1·32	21
22	Hyderabad ...	14	13	1,412	22	55	53	54	60	60	46	41	55	46	33	65	78	324	322	646	·60	·72	·65	·65	22
23	Thar and Párkar.	12	7	669	11	8	10	6	4	1	...	1	...	...	1	...	6	25	12	37	·12	·07	·10	·10	23
24	Lárkhána ...	11	5	713	6	2	1	3	1	...	...	...	1	...	1	...	2	6	5	11	·02	·02	·02	·04	24
25	Sukkur ...	10	6	611	10	8	15	14	13	11	5	5	8	5	7	11	16	77	41	118	·27	·17	·23	·25	25
26	Upper Sind Frontier ...	5	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·01	26
	Total for the Presidency ...	289	264	25,909	9,493	4,793	4,751	5,113	4,781	4,389	4,118	5,148	5,449	5,294	5,328	5,194	5,522	31,297	28,583	59,880	3·28	3·20	3·24	3·04	

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1910.*

1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh...	16	12	1,459	134	560	844	632	69	6	...	...	147	316	233	186	230	1,662	1,551	3,223	3·43	3·30	3·37	2·20	1
2	West Khándesh...	10	4	1,186	5	...	6	21	...	...	...	...	...	...	...	...	...	17	10	27	·07	·04	·05		2
3	Násik ...	16	6	1,649	18	16	44	30	10	...	...	...	2	44	124	135	309	366	348	714	·38	·36	·38	1·03	3
4	Thána ...	12	10	1,633	55	92	190	147	96	73	31	33	97	31	18	21	42	488	433	921	1·15	1·11	1·13	1·06	4
5	Kolába ...	11	10	1,484	54	34	68	87	73	34	38	37	66	63	38	31	24	369	274	643	1·21	·91	1·06	·85	5
6	City of Bombay...	1	1	1	1	85	292	695	913	830	280	224	130	54	61	45	32	2,498	1,143	3,641	4·16	3·13	3·80	10·09	6
	Central Registration District.																								
7	Ahmednagar ...	14	2	1,355	3	3	3	1	...	...	...	1	...	...	...	...	...	3	5	8	·01	·01	·01	·81	7
8	Poona ...	12	10	1,191	80	61	38	21	4	2	1	...	2	1	4	15	26	79	96	175	·16	·20	·18	4·81	8
9	Sholápur ...	10	4	720	9	...	1	...	...	...	...	...	31	5	2	10	168	112	105	217	·31	·29	·30	1·05	9
10	Sátára ...	15	15	1,344	205	525	462	242	81	5	13	41	133	406	523	713	578	1,786	1,936	3,722	3·14	3·36	3·25	10·86	10
11	Ratnágiri ...	10	7	1,308	14	...	4	14	44	42	28	37	53	14	30	1	16	127	156	283	·23	·25	·24	·32	11
	Southern Registration District.																								
12	Belgaum ...	11	11	1,077	134	305	194	138	82	44	32	45	164	263	482	478	553	1,313	1,467	2,780	2·62	2·99	2·80	5·77	12
13	Dhárwár ...	17	15	1,302	96	131	98	79	35	3	1	35	146	312	740	933	1,178	1,895	1,846	3,741	3·38	3·34	3·36	1·97	13
14	Bijápur ...	10	3	1,118	12	102	63	29	5	...	...	...	...	...	3	...	1	97	106	203	·21	·29	·28	0·94	14
15	Kánara ...	13	1	1,289	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	·00	...	·00	·34	15
	Gujarát Registration District.																								
16	Surat ...	10	9	778	68	46	202	220	84	17	43	120	110	82	27	49	54	527	527	1,054	1·66	1·65	1·65	2·22	16
17	Broach ...	8	1	410	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	·01	...	·00	1·63	17
18	Kaira ...	11	9	609	50	117	170	255	74	14	1	9	115	176	105	135	139	632	678	1,310	1·68	1·99	1·83	6·42	18
19	Panch Mahals ...	7	4	693	4	...	...	...	...	...	...	...	...	8	...	9	68	37	43	80	·28	·33	·31	1·62	19
20	Ahmedabad ...	12	10	874	60	44	123	170	57	2	...	13	54	49	60	46	21	297	342	639	·73	·88	·80	3·27	20
	Sind Registration District.																								
21	Karáchi ...	11	2	633	3	204	246	297	288	258	126	35	44	39	26	18	59	953	687	1,640	3·87	3·50	3·70	5·75	21
22	Hyderabad ...	14	6	1,412	8	1	...	12	5	...	...	...	...	1	...	...	...	12	7	19	·02	·02	·02	·02	22
23	Thar and Párkar.	12	...	669	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·00	23
24	Lárkhána ...	11	...	713	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	24
25	Sukkur ...	10	1	611	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	·00	...	·00	·05	25
26	Upper Sind Frontier ...	5	...	391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·06	26
	Total for the Presidency ...	289	153	25,909	966	2,826	3,048	3,091	1,920	1,330	595	730	1,294	1,860	2,476	2,875	3,498	13,273	11,770	25,043	1·39	1·31	1·35	2·90	

N. B.—These figures do not include deaths among Europeans, Eurasians and Fightening men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

FORTY-EIGHTH ANNUAL REPORT

OF THE

Sanitary Commissioner for the Government of Bombay

1911

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency,

AND

The Annual Reports of the Health Officers of the Ports of Bombay, Karachi and Aden.

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1912

ANNUAL SANITARY REPORT, 1911.

(Maximum limit, 25 pages)

CONTENTS.

SECTION I.—METEOROLOGY—*Nil.*

SECTION II.—EUROPEAN ARMY—*Nil.*

SECTION III.—NATIVE ARMY—*Nil.*

SECTION IV.—JAILS—*Nil.*

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

PARA.		PAGE
1—2.	Births and deaths among Europeans and Eurasians	1
3—4.	Native population in the Presidency	*ib.*
	BIRTHS.	
5.	Number of registered births	1—2
6.	Births by sexes	2
7.	Births by years	*ib.*
8.	Birth-rates in urban and rural population	*ib.*
9.	Birth-rates in rural registration circles	*ib.*
10.	Birth-rates in urban and cantonment circles	*ib.*
11.	Still-born	*ib.*
	DEATHS.	
12.	Number of deaths	3
13.	Deaths by years	*ib.*
14.	Death-rate	*ib.*
15.	Male and female death-rate	*ib.*
16.	Deaths by registration districts	*ib.*
17.	Deaths by collectorates	*ib.*
18.	Birth and death-rates compared by collectorates to columns 6 and 9, Annual Form II	*ib.*
19.	Deaths by ages and sexes, Annual Form IV	*ib.*
20.	Deaths by caste or class...	4
21—22.	Infant mortality	4—5
23.	Statistics of Ahmedabad	5
24.	Deaths by causes	*ib.*
25.	Death-rates among urban and rural population	6
26.	Death-rates in rural circles	*ib.*
27.	Death-rates in town circles	*ib.*
28.	Death-rates in cantonments in British territory...	*ib.*
	CANTONMENTS IN QUASI-FOREIGN TERRITORY.	
29.	Statistics of cantonments in quasi-foreign territory	6—7

PARA. PAGE

SECTION VI.

HISTORY OF CHIEF DISEASES.

Cholera.

30. Mortality in 1911 8
31. Deaths by collectorates ... ... *ib.*
32. Monthly mortality ... ... *ib.*
33. Mortality for 20 years, 1892 to 1911 inclusive 9
34. Cholera-producing causes and preventive measures adopted ... 9—10

Small-pox.

35. Deaths from small-pox 10
36. Deaths by registration districts and collectorates ... ... 10—11
37. Deaths by age 11
38. Preventive measures adopted ... ... *ib.*

Fevers.

39. Deaths from fever 1
40. Deaths by registration districts and collectorates ... ... 11—12
41. Deaths by months 12
42. Malarial fevers ... ... 12—13

Rainfall.

43. Rainfall 14

Plague.

44. Deaths from plague ... ... 14—15
45. Deaths by registration districts and collectorates 15
46. Deaths by months ... ... *ib.*
47. Plague preventive measures 16
48. Deaths among the inoculated ... ... *ib.*

Dysentery and Diarrhœa.

49. Deaths from dysentery and diarrhœa 17
50. Deaths by registration districts and collectorates ... ... *ib.*
51. Deaths by months ... ... *ib.*

Injuries.

52. Deaths from injuries 17
53. Deaths from injuries in 1910 and 1911 by sexes 18
54. Deaths from snake-bite 18
55. Death from drowning ... ... *ib.*
56. Suicidal deaths ... ... *ib.*

Respiratory Diseases.

57. Deaths from respiratory diseases ... ... *ib.*
58. Deaths by registration districts and collectorates ... ... 18—19
59. Deaths by months 19

Other Causes.

60. Deaths from other causes 19
61. Deaths from registration districts and collectorates ... ... *ib.*

SECTION VII.

62. General History of Vaccination 20

SECTION VIII.

63. Sanitary Works—Military 20

PARA. PAGE

SECTION IX.

64. Expenditure on sanitary works in municipal towns during the year 1910-1911 20
65. Expenditure on sanitary works in District and Táluka Local Boards during the year 1910-1911 ... ... 20—21
66. Expenditure on urban sanitary works 22
67. Bombay Village Sanitation Act ... ... 22—24
68. Village Sanitary Inspection Book 24
69. Complete Sanitary Surveys of larger towns ... ... *ib.*

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

70. Charge of the office of the Sanitary Commissioner 24
71. The districts visited by the Sanitary Commissioner ... ... *ib.*
72. Tours of the Deputy Sanitary Commissioners ... ... *ib.*

APPENDIX I.

Annual Report of the Sanitary Board for 1911 ... ... 1—4

APPENDIX II(*a*).

Annual Report of the Health Officer of the Port of Bombay for 1911 ... 5—11

APPENDIX II(*b*).

Annual Report of the Health Officer of the Port of Karáchi ... ... 12—15

APPENDIX II(*c*).

Annual Report of the Health Officer of the Port of Aden ... ... 16—19

APPENDIX III.

Table showing the drainage and water-works completed in certain towns ... 20

APPENDIX IV.

Births registered in districts 21
Deaths registered in districts 22
Deaths registered in the districts during each month of the year ... 23
Deaths registered in the districts according to age ... ... 24—25
Deaths registered in the districts according to classes ... ... 26—27
Deaths from different causes in the districts and towns ... ... 28—35
Deaths from cholera in the districts during each month of the year ... 36
Deaths from small-pox in the districts during each month of the year ... *ib.*
Deaths from fever in the districts during each month of the year ... 37
Deaths from dysentery and diarrhœa in the districts during each month of the year ... ... *ib.*
Deaths from respiratory diseases in the districts during each month of the year 38
Deaths from plague in the districts during each month of the year ... *ib.*

ANNUAL SANITARY REPORT FOR 1911.

SECTION I.—METEOROLOGY.—No remarks.

SECTION II.—EUROPEAN ARMY.—No remarks.

SECTION III.—NATIVE ARMY.—No remarks.

SECTION IV.—JAILS.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

European and Eurasian Vital Statistics.

1. The European population in the Bombay Presidency, exclusive of cantonments in *quasi*-foreign territory, is 30,192 according to the census of 1911. During the year 1911, 403 births and 333 deaths were recorded, against 394 and 349 in 1910, giving a birth-rate 13·35 per mille, against 20·95 in 1910 and a death-rate 11·03, against 18·55.

By sexes 211 males and 192 female births were recorded, against 192 and 202 in 1910; and 215 male and 118 female deaths were recorded, against 225 and 124 in 1910.

2. The Eurasian census population of 1911 is 8,902. During the year 168 births were registered against 140 in 1910, and 184 deaths, against 196 corresponding to a birth-ratio of 18·87 per mille, against 21·35 in 1910, and a death-ratio of 20·67 against 29·89.

Of the births 84 were males and 84 females, against 75 and 65 in 1910. Whilst of the deaths 85 were males and 99 females, against 103 and 93 in 1910.

Native Population Vital Statistics.

3. For the compilation of these statistics, the census figures of 1911 have been used. These show a native population for the Presidency of Bombay including Sind of 19,587,383 persons.

4. Statistical returns are received from 26 Collectorates, comprising 228 rural circles and 59 towns, from 6 cantonments in British territory and from 8 in foreign territory.

The population of the rural circles is 16,850,573, of the town circles 2,675,732, of the cantonments in British territory 61,078, and of the cantonments in foreign territory 100,497 persons.

Births.

5. The births registered in the Bombay Presidency, including Sind, in the year 1911 numbered 705,090 and were in proportion of 36·00 per 1,000 of population of all ages. These figures show an increase of 15,389 as compared with the previous year, and exceed by 88,666 the mean of the previous ten years.

In Gujarát the birth-rate was 40·36, against 41·31 in 1910. It ranged from 36·42 in the Surat Collectorate to 44·43 in Broach, and compared with the preceding year there is a decrease in all the districts except Kaira and Ahmedabad; of the three largest towns in the Registration District, Surat and Broach show a decrease in the birth-rate and Ahmedabad an increase as compared with the previous year.

In the Southern Registration District, the birth-rate was 38·45 per mille as against 36·88 last year; and varied from 31·79 in Kánara Collectorate to 40·59 in Belgaum, and compared with the preceding year shows an increase all round of 1·57.

In the Western Registration District the recorded birth-rate for the year was 44·64 per mille as against 48·61 last year, and the variations were from 31·98 in Thána to 52·29 in the West Khándesh Collectorate.

In the Central Registration District the birth-rate was 38·59 and varied from 32·22 in the Ratnágiri Collectorate to 45·34 in Ahmednágar.

In Sind the recorded birth-rate was 20·49 per mille of the population against 22·16 in 1910.

In the Bombay City 21,052 births were registered against 19,643 in the previous year.

There were 13 prosecutions instituted by the Health Department for failure to notify new births in the city; and out of these eight resulted in conviction and levy of fines.

Births by sexes, Annual Form No. 1.

6. Returns show that there were 365,680 male and 339,410 female children born during the year, against 357,949 and 331,752 in 1910. For every 100 females there were 107·74 males. In the previous year, the ratio was 100 to 107·90.

The proportion of male to female births recorded varies from 102·09 in the Bijápur Collectorate to 131·12 in Upper Sind Frontier.

Births by years.

7. The following statement shows the number of births recorded in each year since 1901 :—

1901	... 465,647	1905	...*611,173	1909	... 657,685
1902	... 631,393	1906	... 625,486	1910	... 689,701
1903	... 576,949	1907	... 610,533	1911	... 705,090
1904	... 648,594	1908	... 660,201		

Birth-rates in urban and rural population.

8. The birth-rates recorded among the urban and rural populations of the Presidency were 26·89 and 37·47 respectively, against 26·97 and 38·57 in 1910. Except in the Sind Collectorates the rural birth-rates exceeded the urban.

Birth-rates in rural registration circles.

9. In twenty-five rural circles the birth-rate was above 50 per mille, in eighty it was between 40 and 50, in thirty-two it was between 35 and 40, in twenty-seven it was between 30 and 35, in twenty-eight it was between 20 and 30, and in thirty-six it fell below 20 per mille, all the latter are in Sind.

Birth-rate in urban and cantonment circles.

10. Out of fifty-nine towns and six cantonments in the Presidency, twelve towns recorded birth-rate exceeding 40 per mille, *viz.*, Dholka (56·01), Sholápur (52·92), Borsad (46·37), Dohad (46·33), Jambusar (46·05), Kapadvanj (45·25), Nasirabad (44·57), Kaira (43·58), Gogo (42·58), Karáchi (41·50), A'thni (41·37), Nadiád (40·19).

Still-born.

11. During the year 1911, 10,096 children (or 1·43 per cent. of the total) were registered as still-born, against 9,758 or 1·41 in 1910; of these 5,637 were males and 4,459 were females, against 5,442 and 4,316 respectively in 1910. The percentage of still-born to total births varies from ·13 in Ahmednagar Collectorate to 8·30 in Bombay City.

Deaths.

Number of deaths.

12. Among the Native population, in the rural, town and cantonment circles in the Presidency, 555,312 deaths were registered in 1911 as against 560,003 or 4,691 less than in 1910. Of the total deaths registered, 287,656 occurred among males and 267,656 among females, against 290,696 and 269,307 respectively in 1910.

Of these deaths 100,399 (18·08 per cent.) were due to plague, as against 25,043 (or 4·47 per cent.) last year.

Deaths by years.

13. The following statement shows the number of deaths recorded in each year since 1901 :—

1901	... 686,134	1905	... 588,394	1909	... 505,936
1902	... 721,462	1906	... 648,019	1910	... 560,003
1903	... 811,525	1907	... 606,606	1911	... 555,312
1904	... 764,914	1908	... 501,838		

Death-rate.

14. The recorded death-rate was 28·35 per mille, against 30·30 per mille for 1910, and a decennial mean of 32·63.

Male and female death-rate.

15. The rate per mille of males dying to males living was 28·23 and of females 28·48. In 1910 these ratios were 30·50 and 30·08 respectively.

For every 100 deaths among females there were 107·47 among males, as against 107·94 in the previous year.

These figures vary from 126·83 in Hyderabad District to 99·49 in Belgaum Collectorate, while in the Province of Sind the ratio was 123·10 male to every 100 female deaths.

Deaths by Registration Districts.

16. The following statement shows the recorded deaths in five Registration Districts during the year 1910 and 1911 :—

Registration Districts.	1910.	1911.
Western Registration District	137,399	114,459
Central Registration District	142,118	122,363
Southern Registration District	95,627	149,471
Gujarát Registration District	89,125	76,904
Sind Registration District	61,219	57,550

This shows a decrease in each case except in the Southern Registration District, where plague was very prevalent during the latter part of the year. The recorded deaths in Bombay City were 34,565.

Deaths by Collectorates.

17. Compared with the previous year there was an increase in the recorded death-rate in the Collectorates of Belgaum, Dhárwár, Bijápur, Karáchi and Thar and Párkar.

Birth and death-rates compared by Collectorates to columns 6 and 9, Annual Form II.

18. An examination of columns 6 and 9, Annual Form II, shows the death-rate exceeded the birth-rate in the Collectorates of Dhárwár and Kánara.

In Bombay City the death and birth-rates were 35·88 and 21·85 respectively. For the whole Presidency the birth-rate exceeded the death-rate by 7·65 per 1,000 of population.

Deaths by ages and sexes, Annual Form IV.

19. Deaths by ages are given in Annual Form No. IV. It will be seen there were 208,366 deaths of children under 5 years of age, which, according to the census of 1911, gives a death-rate of 75·30 per 1,000 living as compared with 115·16 last year. Children under 5 years of age contributed 37·52 per cent. to the total deaths.

Deaths by caste or class.

20. The deaths by classes in each Collectorate are recorded in Annual Form V, Appendix IV.

Infant mortality.

21. The mortality of infants based on the number of registered births was 165·83 per 1,000, against 202·77 during the previous year. The proportions were 172·16 among males and 159·01 among females as compared with 210·82 and 194·08, respectively.

22. In Bombay City the ratio of infant mortality based on recorded statistics was 382·53.

The following extract from the Annual Report for 1911 of the Executive Health Officer, Bombay Municipality, shows what progress has been made during the year as regards the enquiry into the causes of infant mortality and its amelioration :—

Free visiting Nurses and Midwives :—

"Its staff of ten Visiting Nurses and Midwives attached to the ten Registration Districts, into which the City has been divided, are engaged in daily visiting the houses of the very poor and ignorant, attending on as many confinements as they can, finding out new births, and enquiring into the condition of the mother and child.

Work done by the Nurses.

The following is a statement, by no means elaborate or exhaustive, of the work done by the ten nurses and midwives during the year under report :—

Summary of inquiries and work of Municipal nurses and midwives.	1909.	1910.	1911.
Total number of births (including still-born registered)	21,645	21,505	23,135
Percentage of still-born to the total number of births registered	8·34	7·28	7·60
Number verified by the nurses	13,677	12,762	13,578
Percentage of the number verified to the total	63·1	59·3	58·7
Do. confinements unattended	18·0	15·2	12·7
Do. confinements attended by unskilled women	58·3	59·6	60·7
Do. confinements attended by qualified Nurses (including Municipal).	11·3	12·0	13·2
Do. confinements attended by Municipal Nurses	4·5	5·6	5·5
Do. children born in hospitals	12·3	13·2	13·2
Do. children born in healthy conditions...	67·8	68·9	74·9
Do. children fed on breast	64·9	59·8	69·7
Do. children dying within 30 days	12·3	11·8	11·5
Do. cases where the mothers left home for work	31·3	27·9	34·4

An examination of the statement will show that of the total number of 23,135 births (including still-births) registered in the City, 13,578 or 58·7 per cent. were verified by the Visiting Nurses. The number verified though slightly lower than in 1909 is higher than in any other previous year. Eight hundred and sixteen more births were verified than in 1910 ; but the percentage of verification is lower than in that year, due apparently to a large increase in the number of births registered.

The proportion of still-births has risen from 7·28 in 1910 to 7·60, but it is lower than in 1908 or 1909.

A very striking and satisfactory decline will be noticed to have steadily taken place in the proportion of births wholly unattended from 31 per cent. in 1908 to 18 in 1909 and from 15·2 in 1910 to 12·7 per cent. in 1911 ; and while the percentage of confinements attended by unskilled women has steadily risen during these years, there has been on the other hand a concurrent increase in that of confinements attended by qualified nurses from 11·3 in 1909 to 13·2 in the year under review.

In spite of a large increase in the number of births registered—of 2,630 over the figure for last year—the percentage of births in hospitals has remained constant and the ratio of confinements attended by Municipal Nurses has nearly kept the same.

Proceeding further, a large increase will be noticed in the proportion of children born in a healthy condition ; this increase has moreover been steadily progressive from 53·5 in 1908 to 67·8 in 1909 and from 68·9 in 1910 to 74·9 in the year under notice. Also, the rise in the proportion of children fed on breast from 59·8 to 69·7 is encouraging, in spite of a sudden increase in that of mothers who left home for work leaving their child in other's care. It is worthy of note that the percentage of children dying within 30 days of birth which fell from 15·2 in 1908 to 11·8 in 1910 further declined to 11·5 in the year under report.

Infant Mortality from principal causes.

The subject of infant mortality may now be discussed in detail. The following table classifies infantile deaths from principal causes under the three age-groups of 1—30 days, 1—6 months, and 7—12 months (the corresponding figures for 1910 have been inserted for comparison) :—

Table of Deaths among Infants from Principal Causes.

Age-period.	Year.	Small-pox.	Measles.	Malaria.	Ague and remittent fever.	Diarrhœa and dysentery.	Premature birth.	Debility.	Nervous system.	Respiratory system.	All causes.	Percentage of deaths in each age-period to total deaths under 1 year of age.
1 to 30 days	1911 ...	4	1	1	51	45	173	2,086	340	63	2,815	34·66
	1910 ...	10	...	2	32	28	145	2,219	283	67	2,844	34·46
1 to 6 months	1911 ...	39	37	2	93	171	2	224	743	932	2,426	29·87
	1910 ...	115	13	4	83	208	2	300	777	944	2,569	31·12
7 to 12 months	1911 ...	55	195	6	97	365	...	54	317	1,369	2,879	35·45
	1910 ...	139	43	3	107	438	...	48	342	1,281	2,840	34·41
Total ...	1911 ...	98	233	9	241	581	175	2,364	1,400	2,364	8,120	...
	1910 ...	264	56	9	222	674	147	2,567	1,402	2,292	8,253	...

If we scrutinize the statement we shall find that compared with 1910 the number of infantile deaths in 1911 from Small-pox was lower by 166, from Diarrhœal Diseases by 93 and from Debility by 203; but the total result is a decrease of only 133 deaths under all causes; because though the mortality from Malaria was the same (9) and from Nervous Diseases nearly so, and the increases were but slight under Ague and Remittent Fever and Immaturity at Birth (being of 19 and 28), the increase of 72 under Respiratory Diseases was considerable, while the high mortality from Measles was the real disturbing factor, as it stood at more than quadruple of that in 1910 (233 against 56)."

Statistics of Ahmedabad.

23. The general death-rate in Ahmedabad city fell from 47·29 to 42·69 per mille, the mean for the last five years being 53·91. Plague caused 16, fever 4,121 and respiratory diseases 2,566 deaths as against 52, 3,318 and 3,059, respectively, last year. It is admitted however that deaths from many other diseases, such as Phthisis, Pneumonia, Broncho and Pneumonia, Measles and Whooping Cough are returned under fevers.

There were 4,692 births recorded or 21·93 per mille of population, the deaths exceeding births by 20·76 per mille. The deaths registered under one year of age were 3,021, corresponding to a ratio of 643·88 per 1,000 of the total number.

Deaths by causes.

24. The subjoined total shows the deaths in 1911 arranged according to causes and contrasted with the results for 1910 and with the mean of the preceding five years:—

	Mean for five years, 1906 to 1910.		1911.		1910.	
	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.
Cholera	17,588	·95	5,817	·30	3,694	·20
Small-pox	3,614	·20	4,727	·24	4,600	·25
Plague	44,368	2·40	100,399	5·13	25,043	1·35
Fever	2,53,153	13·70	223,027	11·38	263,523	14·26
Dysentery and diarrhœa.	47,582	2·58	31,549	1·61	46,643	2·52
Respiratory diseases.	57,333	3·10	51,470	2·63	59,880	3·24
Injuries ...	6,931	·37	7,452	·38	6,885	·37
Other causes ...	1,33,911	7·24	130,871	6·68	149,735	8·10
All causes ...	5,64,480	30·54	555,312	28·35	560,003	30·30

For comments on the causes of death *vide* section VI.

25. The recorded death-rates among the urban and rural populations and in the seven cantonments in British territory are given in Table VI, Appendix IV. The death-rates for the eight cantonments in foreign territory will be found in paragraph 29.

The urban and rural death-rates were 36·89 and 26·96 per mille as against 35·69 and 29·03 in 1910.

In seven collectorates the rural death-rates were in excess of the urban.

Death-rates in rural circles.

26. In twenty-two rural registration circles the mortality rose above 40 per mille; in thirty it was between 30 and 40; in fifty-six it was between 25 and 30; in forty-six between 20 and 25, whilst in seventy-four the record was below 20 per mille, and of these fifty-six were in Sind. The inaccuracy of the vital statistics recorded in this Province has been commented on before. There is no reason why the birth-rate should be so much lower than in the Presidency proper: the people as a whole are better off.

Twenty-two rural circles recorded death-rates of over 40 per mille, and of these two were in Belgaum, three in Dhárwár, three in Bijápur, two in Kánara and one in East Khándesh. The highest were in Navalgund (121·93), Nargund (112·25) and Gadag (91·75) in Dhárwár Collectorate.

Death-rates in town circles.

27. The following table shows that in eleven town circles, out of a total of fifty-nine, the recorded death-rates exceeded 50 per mille:—

Town Circle.		Death-rate.	
Gokák	125·99	Gogo	63·89
Ránebennur	94·32	Málegaon	59·31
Bársi	75·82	Bágalkot	58·52
Gadag Bettigiri	67·73	Násik	51·20
Sholápur	66·48	Dohad	50·95
Pandharpur	64·48		

Death-rate in cantonments in British territory.

28. During the year under report the death-rates in cantonments from all causes were bellow normal. The highest figures were reported from Deoláli and Kirkee, which were 31·46 and 23·62 per mille, respectively.

Statistics of cantonments in quasi-foreign territory.

29. The following table shows the vital statistics of the civil population of those cantonments which are situated in quasi-foreign territory. The total number of births registered in them during the year 1911 was 2,339 against 2,127 in 1910, the birth-rate being 23·27 per mille as against 17·62 in 1910. There were 3,408 deaths, giving a ratio of 30·91, per mille against 3,226 deaths and a ratio of 26·72 in 1910:—

Statement showing the names of cantonments with population and deaths by diseases for the year 1911.

Cantonment.	Population according to Census of 1911.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from									Ratio of deaths per 1,000 of population.								
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.
Aden. Municipal limits.	40,684	6⅞	602	942	23·15	...	26	...	115	283	...	14	650	1,088	...	0·64	...	2·83	6·96	...	0·34	15·98	26·74
Aden. Purely Civil population of Cantonment.	307	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baroda	3,478	1	3,478	71	20·41	...	...	...	16	1	10	1	25	53	...	...	...	4·60	·29	2·88	·29	7·19	15·24
Bhuj	408	1·16	352	9	22·03	...	...	...	1	1	...	...	4	6	...	...	...	2·45	2·45	...	...	9·80	14·70
Deesa	7,129	5	1,713·20	168	23·57	...	...	...	15	9	...	...	94	118	...	...	...	2·10	1·26	..	...	13·19	16·55
Mhow	22,360	6·5	3,440	174	7·78	...	1	303	131	...	...	10	662	1,107	...	·04	13·55	5·01	...	...	·45	29·61	49·51
Nasirabad	16,144	8·58	1,881	673	41·69	...	2	13	319	61	112	6	194	707	...	·12	·81	19·76	3·78	6·94	·37	12·02	43·79
Neemuch	9,786	4·52	2,165	294	30·04	...	25	1	169	10	13	...	110	328	...	2·06	·10	17·27	1·02	1·33	...	11·24	33·52
Rājkot	201	·56	359	8	39·80	...	...	...	1	...	...	...	...	1	...	...	...	4·97	...	...	...	...	4·97
Total ...	100,497	100·87	996	2,339	23·27	...	54	317	767	365	125	31	1,739	3,407	...	·54	3·15	7·63	3·63	1·24	·31	17·30	30·91

The cantonment of Bhuj was handed over to the Cutch Durbár on the 15th November 1911 under orders of the Government of Bombay, Political Department, conveyed in their letter No. 8615, dated 7th November 1911, to the address of the Political Agent, Cutch.

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Mortality in 1911.

30. In Annual Form VII are shown the deaths from cholera for each district by months, the number of registration circles affected, and the number of villages in which the disease was reported to have occurred.

Deaths by Collectorates.

31. In the year 1911 there were 5,817 deaths recorded as due to Cholera compared with 3,694 in 1910. A reference to Annual Form No. VII will show that the disease was chiefly confined to the Collectorates of Bijápur, Dhárwár, Sholápur, Kolába, Thána, Belgáum, Ahmednagar, Poona and Bombay City, while Gujerát and the Province of Sind were practically free from it.

Of the total number of recorded deaths under this heading 1,962 were reported from the Collectorate of Bijápur, 1,650 from Dhárwár; 938 from Sholápur; 309 from Kolába; 182 from Thána; 163 from Belgáum; 162 from Ahmednagar; 141 from Poona and 121 from Bombay City.

Among the 73 Rural Circles in which it was present during the year the chief incidence of the disease fell on those of Bijápur Collectorate in which not a single one was exempt. In the Collectorate of Dhárwár out of 13 rural Circles 11 were attacked and in Sholápur 6 out of 7 were affected, while in the remaining Collectorates the disease did not assume the dimensions of a wide-spread epidemic.

In Bijápur Collectorate the greatest number of deaths was recorded in the Táluka of Indi (597); Hungund (312); Badámi (272); Bagewádi (206); Bágalkot (174) and Bijápur (161).

In the Collectorate of Dhárwár 384 deaths were reported from Karajgi Táluka; 368 from Hangal; 222 from Ránebennur; 140 from Mundargi; 125 from Kod and 106 from Bankápur.

In Sholápur Collectorate 273 deaths were registered in Sholápur Táluka; 159 in Pandharpur, and 133 in Bársi, while in the remaining affected Circles 137 deaths were recorded in Mángaon of Kolába Collectorate and 111 in each of the Jámkhed and Junnar Tálukas of Ahmednagar and Poona Collectorates, respectively.

Sixteen towns reported deaths from cholera. The highest mortality occurred in Sholápur (239); Bombay City (121); Bagalkot (62) in Bijápur, and Hubli (50) in Dhárwár, while in the remaining 12 towns the mortality was trivial.

Among the 6 cantonments in the Presidency one death occurred from this cause at Kirkee.

The disease was local and attacked 543 out of 25,188 villages in the whole Presidency, of which 204 were located in Bijápur, 129 in Dhárwár and 78 in Sholápur.

Monthly mortality.

32. Cholera was more or less prevalent during the whole year under report. In January, February and March there were 99, 80 and 278 deaths respectively reported from the whole Presidency. In April 208 deaths were returned and in May 182. From June the epidemic became more active when 556 deaths took place and 935 in July. The maximum (1,072) was reached in August and the mortality began to decline gradually from September (826) with a slight rise in October (951), falling suddenly to 278 in November and 352 in December.

Mortality for 20 years, 1892 to 1911, inclusive.

33. The following table shows the total number of deaths from Cholera recorded in the annual reports for the last twenty years :—

1892	... 42,900	1897	... 57,109	1902	... 3,229	1907	... 7,656
1893	... 18,853	1898	... 4,368	1903	... 1,825	1908	... 1,759
1894	... 33,588	1899	... 8,579	1904	... 13,156	1909	... 28,714
1895	... 8,890	1900	... 163,889	1905	... 5,396	1910	... 3,694
1896	... 35,404	1901	... 13,600	1906	... 46,119	1911	... 5,817

From this it will be seen that although the mortality fluctuated in individual years, if we take the quinquennial periods a very great improvement is noticeable since those ending with 1896 and 1901, and this would have been even more marked if it had not been for Trimbak Fair in 1909, where there was a severe outbreak at the beginning of the year, after which the disease was disseminated throughout the whole Presidency by the pilgrims returning from the huge gathering there.

Cholera producing causes and preventive measures adopted.

34. The Deputy Sanitary Commissioner, Western Registration District, reports :—

"The earliest outbreaks were in villages round Andheri in Salsette, which is practically a residential suburb of Bombay. As is so often the case, the Deputy Sanitary Commissioner, on visiting the locality found that the only notice that had been taken of the outbreak had been the sending of one of the Mámlátdár's peons to put permanganate of potash in the local wells. It is an unfortunate thing that the idea that permanganation of wells constitutes the be-all and end-all of cholera preventive measures has taken such a firm root in the official mind as it may be made the excuse for the most complete neglect of measures to prevent the spread of the disease from house to house.

The Deputy Sanitary Commissioner brought to the notice of the Collector of Thána the great want of co-operation between Medical Officers of Dispensaries in Sálsette and the Revenue Officials in the matter of cholera prevention and advocated that pressure be brought to bear upon them to work together for the common weal, in view of the great difference there is between the case of really rural villages and that of the residential suburbs that are growing up in Sálsette Island.

The disease next appeared in the Kolába district. The Acting Deputy Sanitary Commissioner visited as many as possible of the affected villages in the different tálukas and gave personal directions for combating the disease. Defects in local water supplies discovered at his visits were brought to the notice of the Collector and President of the District Local Board.

There was a slight outbreak of the disease in December in this Collectorate at Uran which was promptly dealt with. Kolába is a district where the Collector's standing orders regarding cholera outbreaks are exceptionally well known and appreciated by local officials."

Dr. Dalal, Acting Deputy Sanitary Commissioner, Southern Registration District, remarks :—

"This Division was free from cholera until about the middle of February, when the disease was introduced into Amingad village of the Hungund Táluka, Bijápur District, probably from the Nizam's Territories. Immediately on receipt of the information of this outbreak the Collectors of Bijápur, Dhárwár and Belgaum were written to suggesting the adoption of anti-cholera measures. In Dhárwár District, the infection was introduced into Alloor village of the Ron Táluka by a tailor who used to frequent cholera infected villages of the adjoining Badámi Táluka."

Provided the general water-supply of a town does not become infected—a very unusual occurrence in the present day—cholera is comparatively easy disease to stamp out. The specific micro-organism is not very tenacious of life, probably less so than that of any other disease with which we are acquainted, and if the people could only be persuaded to adopt the precautions advocated to protect themselves and their neighbours from contracting the complaint, widespread epidemics would be things of the past.

For the last three years instructions on the subject have been freely circulated directly the disease makes its appearance in a town or village. But the difficulty is to impress the inhabitants with the importance of following them, particularly in regard to the disposal of the patient's excreta, which should be burnt as soon as they are voided. Neglect of this procedure is probably largely responsible for spreading infection. During an outbreak which occurred at Sholápur in July last year, I found a case in a house which had a small patch of waste ground behind it where the patient's stools were

thrown. It was very hot at the time and quantities of flies were buzzing about and settling on the filth as it lay. Further comment is unnecessary.

I have no doubt that when left to their own devices this is the usual method employed by the lower classes for the disposal of virulently infective dejecta of the kind, and so long as they persist in such practices cholera will continue its ravages unchecked.

But, that a great deal can be done by educating the more intelligent and insisting that the ignorant carry out the instructions laid down for the benefit of the community at large, is shown by the results attained at Pandharpur, where, on account of the overwhelming epidemics which used invariably to occur on the occasion of the annual Ashadi Fair, the gathering had come to be regarded as a menace to the health of the whole Presidency, but owing to the elaborate precautions which have been taken during the last few years and the stringent regulations compelling the pilgrims to carry them out, cholera has practically disappeared there.

And the same may be said with reference to the outbreak at Sholápur last year; as soon as the Municipal authorities rigidly insisted on the prescribed sanitary measures being put into execution, the disease rapidly died out.

Small-pox.

Deaths from small-pox.

35. During the year under report the recorded deaths under this heading numbered 4,727, of which 2,476 were males and 2,251 females as compared with 4,600 in 1910 and 4,962 the decennial mean.

The number of deaths registered from small-pox since 1900 is as follows:—

Year.	Number of deaths from small-pox.	Year.	Number of deaths from small-pox.
1900	9,885	1906	4,063
1901	5,340	1907	1,862
1902	2,189	1908	2,526
1903	2,752	1909	5,019
1904	4,289	1910	4,600
1905	16,985	1911	4,727
Total ...	41,440	Total ...	22,797
Mean ...	6,907	Mean ...	3,799

Deaths by Registration Districts and Collectorates.

36. Deaths from small-pox by months and collectorates are shown in Annual Form No. VIII.

In the year under report all the collectorates in the Presidency were more or less affected. Karáchi, Ahmedabad and Kánara Districts suffered most. The number of Registration Circles affected was 194 against 184 in 1910, while the number of towns and villages affected was 913 against 884 in the previous year.

The ratio per 1,000 of population for the Presidency amounted to ·24 as compared with ·25 in the previous year and ·20, the five years' mean.

In Gujarát the mortality occurred chiefly in town circles. Out of 233 deaths in Surat and 780 in Ahmedabad District, 217 and 618 were reported from their head-quarters towns respectively. Other towns severely affected were Viramgáon (50 or 2·41 per mille), Nadiád (110 or 4·05 per mille), Kárwár (99 or 5·49 per mille), Mahád (35 or 4·89 per mille) and Málegáon (110 or 5·63 per mille), a town largely inhabited by Momins, a very backward class of Mahomedan weavers, who have always been strongly opposed to vaccination. The town not only is scourged periodically by small-pox, but is a focus of the dissemination of the disease throughout the whole country side.

In Sind small-pox mortality was confined chiefly to rural areas. The Deputy Sanitary Commissioner, Sind Registration District, remarks :—

"In Karáchi the epidemic affected chiefly the Lár (delta tálukas). During the year under review 661 deaths occurred and, as was noted with regard to Hyderabad in last year's report, the epidemic was especially virulent in those areas where opposition to vaccination is experienced, *e. g.*, Sujáwal and Mirpur Bathoro Tálukas which between them accounted for 344 deaths. The officers of the Revenue Department at the instigation of the Collector, who took a very active personal interest in the matter during his tour in the affected parts, worked with energy to check the spread of the disease and a number of vaccinations and revaccinations far in excess of the average for the district were done. That the epidemic did not cause still greater havoc is due to their efforts."

Hyderabad town remained a centre of epidemic throughout the year under report; and the surrounding areas Hyderabad, Tando Allahyar and Halla tálukas, all of which follow the example of the town in opposing vaccination, were also badly affected. The Deputy Sanitary Commissioner remarks :—

"In the interests of the effects it would have on vaccination in those tálukas within the sphere of influence of the town (Hyderabad) as well as for the safeguarding of the population of the town itself, compulsory vaccination in Hyderabad is loudly called for."

There also appears to be great difficulty in getting vaccination work done in Shikárpur for the same reason, and it would be to the advantage of the community at large if the Act were applied there, too.

In Ratnágiri District the people object to having their children vaccinated until they are five years old or so, with the result that many die of small-pox in their infancy, and rather more than a quarter of the children attending schools bear marks of having had the disease, a much higher percentage than is found in other places where they are protected at a very early stage of their career.

Deaths by age.

37. Of the total number of deaths 26 per cent. occurred among children under one year of age, 42 per cent. among children 1 to 10 years old, and the remaining 32 per cent. among persons over 10 years of age.

Preventive measures adopted.

38. The preventive measures in force were those usually adopted by the Sanitary Department, *viz.*, to obtain early information of an outbreak, to encourage vaccination and revaccination and to supplement the existing staff of vaccinators whenever it was found necessary.

Fever.

Deaths from fever.

39. During the year 1911, 223,027 deaths (116,152 males and 106,875 females) were recorded as due to fevers against 263,523 in the previous year and 258,497 the decennial mean.

The number of deaths recorded from fevers since 1900 is given below :—

Year.	Number of deaths from fevers.	Year.	Number of deaths from fevers.
1900	543,319	1906	274,653
1901	291,951	1907	260,329
1902	270,845	1908	243,372
1903	259,704	1909	223,888
1904	251,330	1910	263,523
1905	245,373	1911	223,027
Total ...	1,862,522	Total ...	1,488,792
Mean ...	310,420	Mean ...	248,132

Deaths by Registration Districts and Collectorates.

40. Deaths from fever by months and collectorates are shown in Annual Form No. IX.

The fever death-rate for the Presidency fell from 14·26 in 1910 to 11·38 in the year under report against a decennial mean of 13·99. The decrease in mortality, as compared with the figures of the preceding year, is noticeable in all the collectorates with the exception of Karáchi, Thar and Párker, Dhárwár and the City of Bombay. The decrease is most conspicuous in the Districts of East and West Khándesh, Násik, Ahmednagar, Poona, Sholápur, Broach and Panch Maháls, all of which recorded high fever mortality in 1910.

The highest ratio per mille (19·20) was recorded in the collectorate of Ahmedabad followed by Thar and Párker (17·22), Thána (16·85), Kolába (16·54), Broach (16·49), Lárkhána (15·04), Kánara (14·54) and Surat (14·42), while the lowest were returned from Belgaum (5·00), Ahmednagar (7·49), Karáchi (7·83), Sátára (8·71) and East Khándesh (9·45).

By Registration Districts, Gujarát recorded the highest ratio of 14·74, Sind 13·01, Western 12·79, Central 10·47 and Southern 8·87.

The ratio for the City of Bombay amounted to 3·21 per mille.

Deaths by months.

41. During the first quarter of the year fever mortality was very high; there was a gradual fall during the second quarter; and from July to the end of the year there was a continuous rise.

Malarial fevers.

42. The year 1911 was marked by deficient rainfall, and the season being very dry in the Presidency proper, malarial fevers were prevalent to a less extent than usual. In Sind the inundation was not so extensive as it generally is in July, August and September; as a result the incidence of malaria was less in the subsequent months.

In the year under report 27 Sub-Assistant Surgeons were deputed to carry out anti-malarial operations generally in the same parts of the selected districts as detailed in the last year's report with the exception of Ahmedabad and the addition of Kolába.

This year the majority of these officers were deputed a few weeks later than formerly, and worked during the last two or three months of 1911 and the first month of 1912. They treated cases of malarial fevers and enlarged spleen, together with other common ailments. They also visited the schools in their charge and examined children for spleen enlargement.

Regarding these measures the Civil Surgeon, Belgaum, reports:—

"The work done by him (the Sub-Assistant Surgeon) may not have been very large in amount, but I think it quite worth while detailing a Sub-Assistant Surgeon for malarial duty each year so as to help to educate the masses towards a true conception of the prophylaxis of malaria. Khánápur is the only táluka in the District that showed a considerable number of enlarged spleens."

The Civil Surgeon, Hyderabad, reports:—

"The people received treatment and are reported to have been greatly benefited."

The Civil Surgeon, Lárkhána, reports:—

"According to the public opinion and the statistics of the previous year, the prevalence of malaria was fairly less in these two tálukas (Mehar and Nasirabad) this year and this is chiefly due to the early steps taken to combat with the disease and to the inducement which was offered to the ignorant public by the officers on duty."

The Civil Surgeon, Dhárwár, reports:—

"He (the Sub-Assistant Surgeon) suggests that a number of quinine pills should be kept with the school masters for use by the children attending the school and a register be kept of the children who are so treated. This seems a very good idea and in the hands of school masters will go greatly to popularising treatment by quinine. School masters might be given instructions in palpating spleens and in eliciting history of malarial cases."

The Civil Surgeon, Poona, reports:—

"With regard to the duties of anti-malarial officers in future, I am personally of opinion that much more good would result from their tours if they were provided with a more comprehensive outfit, and allowed to make more prolonged halts at convenient centres, the people in surrounding villages being informed of their itinerary. In this way roads would serve in many cases, and a cart would be utilised for transport. For difficult

country light boxes (say two in number) could be used, suitable for cooly transport. In the latter case at any rate I would suggest that weight should be economised by issuing as many drugs as possible in tablet or other solid form. If this plan were adopted the treatment of other diseases, such as diarrhœa, dysentery, worms, conjunctivitis and ordinary surgical affections, such as wounds and ulcers, could be undertaken."

As regards the quantity of quinine actually used by the people, there is no information available in this office. The most definite information comes from Lárkhána, the Civil Surgeon of which reports :—

"The total quantity of quinine sulphas consumed during the year was 75 lbs. in the whole District which is distributed as follows :—

"A.—32 lbs. were purchased by the Local Board at a cost of Rs. 365. This quantity was distributed in packets in all the 9 tálukas among the Zemindars and the people.

"B.—23 lbs. and 15 ozs. were used by the dispensary medical officers of the District.

"C.—5 lbs. of quinine were distributed in the villages by the two Sub-Assistant Surgeons who are specially deputed in connection with malarial duties in Mehar and Nasirabad Tálukas.

"D.—14 lbs. and 20 ozs. were consumed in the Civil Hospital, Lárkhána."

Eleven lbs. and 9 ozs. of quinine was distributed by the Sub-Assistant Surgeons on special malaria duty in West Khándesh.

With regard to the foregoing remarks by the Civil Surgeons, I quite agree with the general consensus of opinion that every facility should be given the people to procure quinine, and that school masters might be usefully employed in its distribution. They usually combine the office with that of village Post Master and as many of them have been authorized to sell it in the interest of public health for years they understand all about it, but I should not put much faith in spleen statistics culled from such a source (*vide* remarks from the Civil Surgeon, Dhárwár).

Undoubtedly the treatment of malarial fevers by the travelling Sub-Assistant Surgeons, when the remedies are given gratis, is a great improvement on the old methods, when the people had to pay for their quinine. In the rural districts where wages are very low indeed, if there are two or three persons in one family suffering from diseases of the sort, they will require ten or twelve doses a day between them, and the cost, small though it may be, is quite prohibitive as far as the majority of field workers are concerned, not to mention that in many cases they have to tramp several miles to the nearest post office to buy it.

And for this reason I do not think that the principle lately introduced of dispensing the drug in tabloid form at three annas a "treatment" will benefit agricultural labouring classes. It will be a great boon to artizans, vernacular clerks, etc., drawing from fifteen to twenty rupees a month, but it is quite out of the reach of the average ryot with a family to maintain.

Of other anti-malarial measures, minor works of draining or filling in hollows in or near the towns, the use of kerosene oil, the removal of weeds from the surface of streams and tanks, combined with general cleanliness and sanitation were carried out in some of the municipal and dispensary towns.

In connection with the work of the Committee appointed to consider the advisability or otherwise of the retention of Thána as a headquarters station, the Deputy Sanitary Commissioner, Western Registration District, carried out an estimation of the spleen index in children in the villages of the North end of the East side of Salsette Island. He examined 1,133 children from 2 to 14 years of age in the villages around Thána, and the percentage of the children who were found to have the spleen enlarged and projecting below the ribs varied from 15 to 94, the mean spleen rate being a fraction under 50 per cent. The Deputy Sanitary Commissioner remarks :—

"A state of things much graver than had probably been suspected by anyone was revealed by this investigation. It certainly seems to lend weight to the suggestion that malaria is, at least in some places, far more severe in its incidence than it was in former times."

The Deputy Sanitary Commissioner, Southern Registration District, remarks :—

"During the year under report the malarial survey of this Division was completed. The above-ghát tálukas of the Kánara District were found to be the most malarial. If any anti-malarial campaign is contemplated, the case of the Kánara District should engage the serious attention of Government."

Rainfall.

43. *January.*—Rain was from fairly heavy to light showers.

February.—The month was practically rainless.

March.—Rain was recorded in light to fairly heavy showers. It was general in Gujarát, Kathiáwar and Cutch. In West Khándesh and Násik it was light.

April.—Rain in light to moderate showers was recorded in the Karnátak and the Southern Marátha Country States and in the above-ghát tálukas of Kánara.

May.—Rain during the month was recorded in light to fairly heavy showers in the whole of the Karnátak, Kánara in the Konkan and Sátára, in South Deccan and in the States bordering on these tracts.

June.—The South-West monsoon opened in the first week in June on the Konkan coast; and fair monsoon conditions appeared in almost the whole of the reporting area. The current, however, diminished considerably in strength at the end of the second week and rain practically ceased everywhere except in the Konkan. In the Deccan, Karnátak and Konkan the rainfall of the month was in defect of the average. In Gujarát, the rainfall exceeded the average.

July.—In the Deccan, the rain was in defect of the average, particularly in the western parts. It fell almost daily in light to fair showers in tracts near the Sahyádris. In Karnátak, the total fall of the month was above the average in almost the whole of Bijápur and the eastern portion of Belgaum and Dhárwár. In Konkan, the rain was much in defect of the average, the deficit being particularly marked in the three northern districts.

August.—In the Deccan, the total fall exceeded the average. In Karnátak, the rain was far short of the usual fall. In the Konkan, the total fall of the rain exceeded the average. In Gujarát the aggregate rain during the month was considerably in defect of the average.

September.—In the Deccan, the total fall of the month was considerably in defect of the average. In Karnátak the rain was far short of the usual fall. In Konkan, the rain was considerably below the average. In Gujarát, the aggregate rain was considerably in defect of the average.

October.—In the Deccan, the rain was much in defect of the average throughout the Division. In Karnátak the total fall exceeded the average. In Konkan the aggregate rain was in defect of the usual fall. The Gujarát was practically dry throughout the month.

November.—In the Deccan, the total fall of the month generally exceeded the average. The Karnátak was entirely dry during this month. In the Konkan the rain was in excess of the average.

December.—Practically there was no rain at all.

In the Presidency Proper, owing to the failure of the monsoon, the prices of food-grains were high, especially during the last three months of the year under report. Consequently, grain-compensation was granted to Government servants of several districts and famine conditions were declared in the Panch Maháls District.

Plague.

Deaths from plague.

44. The recorded deaths from plague numbered 100,399, of which 51,108 were males and 49,291 females, as compared with 25,043 in the previous year and 111,144 the mean of the preceding ten years.

The number of recorded deaths from plague since 1900 is given in the following table :—

Year.	Number of deaths from plague.	Year.	Number of deaths from plague.
1900	33,196	1906	51,525
1901	128,259	1907	93,609
1902	184,752	1908	27,345
1903	281,269	1909	24,319
1904	223,957	1910	25,043
1905	71,363	1911	100,399
Total ...	922,796	Total ...	322,240
Mean ...	153,799	Mean ...	53,707

It will be seen from the above that the low plague mortality recorded during the three preceding years has not been maintained in the year under report.

Deaths by Registration Districts and Collectorates.

45. The ratio for the whole Presidency was 5·13 per 1,000 population against 1·35 in the previous year and 2·40 the mean of the previous five years. All the collectorates in the Presidency, with the exception of Thár and Párkar and the Upper Sind Frontier which enjoyed complete immunity, reported an increased number of deaths. Belgaum, Dhárwár and Bijápur Districts suffered most; more than 61 per cent. of the total plague mortality in the Presidency occurred in these three. Other Collectorates severely affected were Sholápur (9·16 per 1,000 population), Násik (6·44), Karáchi (6·04), Sátára (3·95), and East Khándesh (3·94).

It will be seen from the following figures that the places most seriously affected during the year under report enjoyed comparative immunity during the preceding years :—

Name of Collectorate.	Plague mortality in					
	1911.	1910.	1909.	1908.	1907.	1906.
Násik	5,822	714	54	270	605	500
Sholápur	7,033	217	151	625	190	168
Belgaum	12,758	2,780	3,352	4,320	13,961	1,628
Dhárwár	38,523	3,741	1,405	2,090	579	652
Bijápur	10,145	203	1,103	192	23	51

Of 293 Registration Circles 196 were affected against 153 in 1910, while the number of affected towns and villages rose from 966 in the previous year to 2,668 in the year under report. In Dhárwár District more than 56 per cent. of the villages were affected.

Among towns which furnished the highest mortality were Násik (23·64 per 1,000 population), Malegaon (34·49), Sholápur (22·23), Bársi (43·99), Pandharpur (33·16), Sátára (13·93), Wái (24·57), Gokák (98·55), Dhárwár (15·35), Gadag (44·37), Bijápur (32·97), Bágalkote (24·29), Dohad (19·99), and Karáchi (21·06).

Deaths by months.

46. Plague mortality continued to rise during the first two months of the year; from March there was a gradual decline till June in which month the minimum (1,409) was reached; from July there was a sudden rise which became more marked in September and October and the number of deaths recorded in the latter month amounted to 20,456; then there was a sudden fall towards the close of the year.

Plague preventive measures.

47. The measures adopted for the prevention of plague were evacuation, inoculation and rat destruction. Special plague investigations in Kaira, Belgaum and Sátára Districts were discontinued as per Government Resolution, No. 2446, dated 24th April 1911.

Considerable pain has been taken to popularise inoculation as a prophylactic measure against plague which has been attended with a certain amount of success. At the time when the disease was most prevalent twenty-four Assistant Surgeons were deputed on special plague duty for the purpose and some of the private practitioners were supplied with serum and apparatus by the Director, Bombay Bacteriological Laboratory, to perform the operation on their own account whenever they could find a willing subject. It was also largely carried on by Civil Surgeons throughout the country and in some instances by Sub-Assistant Surgeons in charge of dispensaries. In addition a certain number of prisoners in the various jails were subjected to the process, notably at Thána.

The total number of persons inoculated during the twelve months under report was 93,655, compared with 30,635 in the previous year, of whom 90,963 belonged to British Territory and 2,692 to Native States. Taking the figures by districts 32,047 operations were performed in Dhárwár, the worst affected district in the Presidency, 10,640 in Poona, 7,969 in Bijápur, 7,560 in Ahmednagar, 5,348 in Sátára, 4,699 in Belgaum, 4,511 in Karáchi, 2,577 in Surat, 1,931 in Sholápur, 1,458 in Násik, 1,203 in Thána, 717 in Ahmedabad, 297 in Kaira, and 237 in Ratnágiri, while the number of operations performed in other districts was less than 200. As regards Native States the majority of inoculations were performed in Rájpipla (828), Rewa Kántha (466) and Pálanpur (410).

The majority of operations noted above were performed in the chief plague-infected towns. All operations in the Karáchi District were in the City of Karáchi, 6,410 were in Poona City, 7,141 in Hubli, 4,256 in Ahmednagar, 4,418 in Sátára, 3,806 in Bijápur and 3,019 in Poona Cantonment. The number of operations performed in Bombay City amounted to 9,619 against 6,661 in the previous year.

All the operations performed in Thána and Ratnágiri Collectorates were among the prison population.

Deaths among the inoculated.

48. Eighty-one plague cases were reported among persons who had been inoculated, of which 38 proved fatal as compared with 26 cases and 15 deaths in the previous year. Of this total, 12 cases with 5 deaths occurred in Sátára Collectorate, 25 cases with 13 deaths in Belgaum, 4 cases with 3 deaths in Ahmednagar, 9 cases with 4 deaths in Surat, 17 cases with 5 deaths in Poona, 8 cases with 5 deaths in Násik, 3 cases with 1 death in Karáchi, 2 cases with 2 deaths in Sávanur, while in Porbander there was one case.

Among the fatal cases 36 might reasonably be considered to have been in the incubation stage of the disease at the time of inoculation as they contracted the disease before the serum had time to react, while one developed plague after one month and the other after two months.

Regarding the plague preventive measures, the Deputy Sanitary Commissioner, Southern Registration District, remarks :—

"Evacuation was freely resorted to by the people of their own accord. Anti-plague inoculations were carried out on a large scale in the Belgaum, Dhárwár and Bijápur Districts; and during the present touring season I have gathered that this great measure is clearly making headway and that generally the villagers are alive to its benefits."

This is very much borne out by results, both in the Southern and other divisions. The progress made is to a great extent due to the efforts of Mr. Nulkar, a Deputy Collector, whose services having been lent to the Sanitary Department for the purpose, toured in Máwal and Bijápur Tálukas. His influence was largely instrumental in inducing the people to submit to the process.

Dysentery and Diarrhœa.

Deaths from dysentery and diarrhœa.

49. During the year under report 31,549 deaths, of which 16,668 were males and 14,881 females, were ascribed to these causes as compared with 46,643 in the previous year and 52,919, the decennial mean.

The number of deaths from Dysentery and Diarrhœa since 1900 is as follows:—

Year.	Number of deaths from Dysentery and Diarrhœa.	Year.	Number of deaths from Dysentery and Diarrhœa.
1900	218,243	1906	61,736
1901	60,198	1907	53,708
1902	58,682	1908	40,781
1903	55,443	1909	35,039
1904	61,470	1910	46,643
1905	55,488	1911	31,549
Total ...	509,524	Total ...	269,456
Mean ..	84,921	Mean ...	44,909

Deaths by Registration Districts and Collectorates.

50. Deaths from these causes by months and collectorates are set forth in Annual Form No. X.

The death-rate per 1,000 of population for the whole Presideney was 1·61 per 1,000 of population against 2·52 in the previous year and 2·58, the quinquennial mean. In all the collectorates the mortality recorded from these diseases was less as compared with the previous year. The decrease was most conspicuous in Ahmednagar, Poona, Sholápur, Sátára, Násik and Belgaum.

Deaths by months.

51. These diseases were, as usual, most prevalent in the rainy months of July, August and September, and the lessened mortality is probably due to the scanty rainfall last year.

Injuries.

Deaths from injuries.

52. There were 7,452 deaths due to Injuries, of which 4,170 were male and 3,282 females. The figures for the previous year were 6,885 and the mean of the previous ten years was 6,879.

The number of deaths recorded under the heading Injuries since 1900 is given below:—

Year.	Number of deaths from Injuries.	Year.	Number of deaths from Injuries.
1900	8,224	1906	6,830
1901	7,092	1907	6,799
1902	7,434	1908	7,109
1903	6,693	1909	7,029
1904	6,333	1910	6,885
1905	6,586	1911	7,452
Total ...	42,362	Total ...	42,104
Mean ...	7,060	Mean ...	7,017

Deaths from Injuries in 1910 and 1911 by sexes.

53. The deaths by sexes arranged under the various heads classed as Injuries, and compared with those of the previous year, are given in the following table :—

Causes.	1910.			1911.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,169	1,584	2,753	1,248	1,666	2,914
Poisoning	64	27	91	108	42	150
Hanging	116	58	174	122	69	191
Wounding	618	314	932	626	321	947
Wild beasts	33	3	36	34	13	47
Snake-bite	887	485	1,372	957	589	1,546
Railway accidents	60	6	66	53	11	64
Other causes	924	537	1,461	1,022	571	1,593
Total ...	3,871	3,014	6,885	4,170	3,282	7,452

The increased mortality falls under every head excepting railway. In Poona Collectorate there was an increase of 221 deaths, as compared with the figures of the previous year, chiefly due to a sudden conflagration that occurred at a theatrical performance at a village in Haveli Táluka.

Deaths from snake-bite.

54. There was an increase of 174 in deaths caused by the snake-bite. As usual Ratnágiri was the district from which the highest number of deaths (236) was reported. Thána reported 165 against 93 in 1910, followed by Hyderabad (116), Kaira (109), Ahmedabad (104) and Sátára (74); while the lowest (4) was reported from the city of Bombay, Kánára (10) and the Upper Sind Frontier (10).

Deaths from drowning.

55. Of the total mortality from Injuries 39 per cent. was due to drowning; 47 per cent. of these were accidents at wells; and more than 67 per cent. of the victims were females.

Suicidal deaths.

56. There were 535 suicidal deaths—292 males and 243 famales. Drowning and hanging were the chief methods employed for self-destruction.

Respiratory Diseases.

Deaths from respiratory diseases.

57. There were 51,470 deaths (27,293 males and 24,177 females) registered under the heading Respiratory Diseases against 59,880 in 1910 and 57,333 the mean of preceding five years.

The number of deaths registered under this heading since 1902 is given below :—

Year.	Number of deaths from Respiratory Diseases.	Year.	Number of deaths from Respiratory Diseases.
1902	59,379	1907	58,068
1903	59,349	1908	54,671
1904	59,579	1909	53,433
1905	54,537	1910	59,880
1906	60,615	1911	51,470
Total ...	293,459	Total ...	277,522
Mean ...	58,692	Mean ...	55,504

Deaths by Registration Districts and Collectorates.

58. Deaths from these diseases, by months and collectorates, are given in Annual Form No. XI.

The ratio per mille of population from the respiratory diseases for the Presidency amounted to 2·63 against 3·24 in 1910, and 3·10, the mean of the previous five years. As compared to the rest of the Presidency, all the districts in Gujarát, with the exception of Panch Maháls, recorded high ratios, while the lowest were returned from Sind.

Deaths from respiratory diseases, by districts and towns, are shown in Annual Form No. VI, column 9. The mortality per 1,000 population in rural areas amounted to 1·86 as contrasted with 7·35, the urban ratio. The highest were recorded against Kaira (16·31), Nadiád (12·52), Ahmedabad (11·99), Borsad (11·97), Gogo (11·15), City of Bombay (11·08), and Broach (10·29); while in the Towns of Jacobabad and Mahád not a single death was registered from chest complaint.

Deaths by months.

59. The monthly distribution of deaths from these diseases was fairly equal throughout the year.

Other Causes.

Deaths from Other Causes.

60. The number of deaths recorded under the heading *Other Causes* amounted to 130,871 (66,748 males and 64,123 females) as compared with 149,735 in 1910 and 140,618, the decennial mean.

The number of deaths registered under this head since 1900 is as follows:—

Year.	Number of deaths from Other Causes.	Year.	Number of deaths from Other Causes.
1900	842,027	1906	142,478
1901	179,694	1907	124,575
1902	134,952	1908	124,275
1903	144,510	1909	128,495
1904	144,800	1910	149,735
1905	132,666	1911	130,871
Total ...	1,078,649	Total ...	800,429
Mean ...	179,775	Mean ...	133,405

Deaths from Registration Districts and Collectorates.

61. The ratio per 1,000 of population for the Presidency amounted to 6·68 against 8·10 in the previous year. But in the case of individual collectorates the ratio varied from ·20 in Thar and Párkar to 15·29 in Dhárwár. As compared with the rest of the Presidency all the collectorates in the Southern Registration District and those in the Western, with the exception of Thána and Kolába, recorded high rates.

The percentage of deaths recorded from other causes to total deaths, for the Presidency, was 23·57, with percentages varying from 31·32 in the Western Registration District to 8·15 in Sind.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

62. This section has been omitted from this report and appears separately.

SECTION VIII.

SANITARY WORKS—MILITARY.

63. No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

64. During the year 1910-1911 there were 23 City Municipalities and 134 Town Municipalities in the mofussil with a population of 2,356,254 souls.

The total income of these Municiplities amounted to Rs. 97,16,431-10-2, of which a sum of Rs. 25,70,603-2-3 was expended on "public health" improvements. The incidence of taxation and income per head of population have decreased from Rs. 2-2-0 to 2-1-10 and from Rs. 3-6-11 to 3-2-9 respectively. Karáchi has the highest incidence of taxation (Rs. 5-4-11) and Panchgani the lowest (Re. 0-3-5).

Eight notified areas have been added during the year, the number of such areas being thus brought up to twenty. No taxes were levied within the limits of 6 of these areas, *viz.*, Goregaon, Kandiwli, Bhayander, Vikhroli, Bhandup and Mulund in the Thána District, the only reason for their creation being to exercise control over building operations.

The closer attention paid to sanitation under the stimulus of liberal Government grants is shown by the increase of Rs. 2,83,000 under "public health" expenditure, and many improvements in water-supply and drainage are being carried out. Details of these works are shown in Appendix I, and it will be seen that in the Presidency 27 such works are either in progress or under investigation.

During the year ending 31st December 1911, the following expenditure was met by the Municipalities named below from the Government grants made to them for making town improvements :—

District.	Municipality.	Amount. Rs. a. p.
Belgaum	Belgaum	1,155 0 4
E. Khándesh	Faizpur	17,331 1 9
Dhárwár	Hubli	38,389 13 0

The Násik Municipality spent Rs. 125 on the preparation of plans for town improvements.

The Bijápur Municipality spent a sum of Rs. 6,381 on "public health". Out of this sum Rs. 5,322 were expended on lighting.

65. There were 25 District Local Boards and 213 Táluka Local Boards. The number of Táluka Local Boards increased by one on account of the creation of a Board for the newly constituted táluka of Hukeri in the Belgaum District. This area was formerly administered by the Táluka Local Board, Chikodi. The

total area in charge of the Boards increased by $2\frac{3}{4}$ square miles owing to the inclusion of the village of Borpáda in the Nandurbár Táluka of West Khándesh. There was also a slight territorial adjustment between the districts of Thána and Kolába. The total population of the area administered by the Local Boards was 17,719,279, according to the recent census, an increase of nearly half a million over the previous recorded figures. The income of these Boards during the year ending 31st March 1911 amounted to Rs. 68,32,039-12-9; and out of this sum Rs. 3,52,902-7-10 were expended on water-supplies and drainage, while a sum of Rs. 24,639-9-1 was spent on other works of improvement. The total expenditure amounted to Rs. $68\frac{1}{2}$ lákhs against $69\frac{1}{3}$ lákhs in the preceding year. The expenditure under the head "Medical" rose from Rs. 3,74,000 to Rs. 4,32,000. There was a general increase in all three divisions and in Sind, attributed to a variety of causes. In the Karáchi, Sukkur and Thar and Párkar Districts this was principally due to the distribution of quinine in malarial tracts. In the first-named district a Sub-Assistant Surgeon was specially employed to organize the distribution of the drug, and the measure is reported to have been highly beneficial.

During the year 1911, Government sanctioned certain allotments from the Provincial Funds as well as from the grant of Rs. 7 lákhs made by the Government of India. The Provincial grants were made for carrying out improvements exclusively to village water-supplies, while the allotment made by the Government of India has been mainly devoted to the improvement of water-supplies, village sanitation, the proper equipment and maintenance of dispensaries and the upkeep of roads and bridges.

The following statement shows the distribution of these allotments and the expenditure met from them :—

Division.	Districts.	Provincial Funds.		Government of India grant.		Remarks made by District Officers.
		Grants made from Provincial Funds.	Expenditure.	Grants made from the allotments sanctioned by the Government of India.	Expenditure.	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Northern Division.	Ahmedabad ...	5,000 0 0	1,351 10 5	40,000 0 0	40,190 0 0	The Commissioner, Northern Division, states that in view of the fact that the allotments made to different Boards are amalgamated with the Boards' General Revenues and are not kept separate, it is not possible for the Collectors to furnish more particular information than that contained in their reports.
	Kaira ...	1,500 0 0	*Nil.*	25,000 0 0	25,000 0 0	
	Panch Mahâls	1,500 0 0	*Nil.*	30,000 0 0	30,239 0 0	
	Broach ...	5,000 0 0	5,000 0 0	32,000 0 0	14,573 11 11	
	Surat ...	2,000 0 0	2,000 0 0	25,000 0 0	26,160 0 0	
	Thâna ...	5,000 0 0	1,534 11 0	30,000 0 0	Not available.	
Central Division.	East Khándesh ...	2,500 0 0	790 0 0	59,000 0 0	50,812 0 0	The balance will be fully utilized before the end of the current financial year.
	West Khándesh ...	3,500 0 0	737 13 5	34,400 0 0	16,659 8 3	
	Násik ...	4,000 0 0	264 3 9	28,200 0 0	7,884 12 1	The Commissioner, Central Division, states that the Collector has been asked to explain why a larger amount could not be spent.
	Ahmednagar ...	2,500 0 0	2,281 3 1	29,500 0 0	26,193 3 1	
	Poona ...	2,500 0 0	30 0 0	20,000 0 0	4,705 0 0	The balance will be utilised before the end of the current financial year.
	Sátára ...	2,500 0 0	Not available.	31,000 0 0	3,176 0 0	The Sátára-Tásgaon Road and Peth-Shirála Road require urgent repairs.
	Sholápur ...	2,500 0 0	632 0 0	21,400 0 0	11,781 2 9	The balance will be utilised before the end of the financial year.
Southern Division.	Belgaum ...	2,500 0 0	2,500 0 0	30,000 0 0	30,000 0 0	
	Bijápur ...	1,500 0 0	.....	30,000 0 0	45,431 0 0	The Commissioner, Southern Division, states that the grants are incorporated among the receipts and no separate account of them is kept, the Collector merely seeing that more than the amount granted is spent on the objects for which the grant is made.
	Dhárwár ...	2,000 0 0	.....	38,000 0 0	2,39,522 0 0	
	Kánara ...	1,000 0 0	.....	15,000 0 0	26,285 0 0	
	Kolába ...	2,000 0 0	.....	20,000 0 0	32,848 0 0	
	Ratnágiri ...	1,000 0 0	.....	23,000 0 0	46,308 0 0	
Sind ...	Karáchi ...	470 0 0	470 0 0	30,825 0 0	27,144 0 0	The excess over the sum has been met from the General Local Fund.
	Hyderabad ...	4,044 0 0	4,044 0 0	37,000 0 0	24,510 10 11	
	Sukkur ...	2,874 0 0	2,790 0 0	21,000 0 0	23,560 0 0	
	Lárkána ...	492 0 0	425 0 0	36,000 0 0	34,574 14 3	
	Thar and Párkar ...	2,120 0 0	2,120 0 0	11,175 0 0	11,550 12 5	
	Upper Sind Frontier.	.....	.....	18,000 0 0	17,474 0 0	

As to the expenditure met from these grants no precise information is forthcoming under the abovementioned heads, as the District Local Boards have incorporated them with their General Receipts, and no separate accounts have been kept. In the Northern Division the Boards spent Rs. 1,38,000 on improving village water-supply, constructing new wells and tanks and repairing old wells. In the Southern Division and Sind a large number of wells were sunk and several of those already existing were repaired or deepened. The District Local Board of Bijápur and Kolába paid Rs. 20,000 and Rs. 1,500 respectively to the Bijápur and Alibág Municipalities for the improvement of the water-supply of those towns. In the Central Division the Local Boards of Ahmednagar, West Khándesh, Násik, Poona and Sátára spent less than last year on water-supply.

66. With reference to paragraph 4 of Government Resolution, General Department, No. 6327, dated 28th October 1911, an attempt was made to collect the details of expenditure of the allotment of Rs. 2 lákhs from the special non-recurring grant of Rs. 4½ lákhs made by the Government of India, on urban sanitary works. The following is the summary of account :—

The Collector of Broach states that Rs. 25,000 have been allotted for filling up Fata Talao at Broach. The project has been approved by the Deputy Sanitary Commissioner and the amount has been placed at the disposal of the Broach Municipality.

The Collector of Poona states that out of the allotment of Rs. 14,000 a sum of Rs. 3,646-12-6 was spent on the working of the experimental sewage installation.

The Collector of Dhárwár states that as regards the grant of Rs. 30,000 reserved by Government for the drainage scheme of the Dhárwár Municipality a preliminary survey of the town is being made by an officer kindly lent by the Government of His Highness the Maharaja of Mysore State and that plans and estimates will be ready in a month or so.

The Commissioner in Sind states that an allotment of Rs. 10,000 has been made for filling in the Kafila Serai Tank at Lárkána.

67. The Bombay Village Sanitation Act, 1889, was in force in 286 villages against 300 up to the end of last year ; it having ceased to be in force in the remaining fourteen since the beginning of the year.

The Sanitary Committees at Kudchi and Ainápur in Athni Táluka, Belgaum District, were abolished, and new Sanitary Committees at Telsang in the Athni Táluka, at Dewalpur in Sampgaon Táluka, and Murgod in Murgod Máhal were established. In the Bijápur District out of 37 Sanitary Committees, at the beginning of the year 29 were abolished and their unexpended balances credited to the District Local Board. There are no Sanitary Committees or Boards in the Kánara District, but it is proposed to introduce the Village Sanitation Act at Hosur, Baliskope and Konoli; *vide* Government Resolution, General Department, No. 5976, dated 30th November 1910. The Sanitary Committee at Olpád in Surat District is in its infancy and steps are being taken to effect necessary improvements.

The following statement shows the financial position of the Sanitary Committees in various districts during the year ending 31st December 1911 :—

Districts.	Number of Sanitary Committees.	Income including balances.	Expenditure.	Closing balance.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
East Khándesh	8	22,124 1 4	12,894 4 5	9,229 12 11
West Khándesh	6	11,044 2 3	4,079 13 5	6,964 4 10
Násik	11	12,882 13 0	4,287 3 0	8,595 10 0
Thána	3	3,235 10 0	1,275 14 0	1,959 12 0
Kolába	10	2,615 7 9	1,328 7 8	1,287 0 1
Ahmednagar	14	13,264 0 0	8,269 0 0	4,995 0 0
Poona	2	832 13 6	369 15 9	462 13 9
Sholápur	2	1,542 2 6	647 13 6	894 5 0
Sátára	10	3,774 7 2	2,535 12 11	1,238 10 3
Ratnágiri	2	3,559 2 11	2,369 13 3	1,189 5 8
Belgaum	7	7,121 12 10	3,793 15 6	3,327 12 4
Dhárwár	18	8,928 13 10	2,453 3 10	6,475 10 0
Bijápur	8	5,151 1 4	2,780 13 0	2,370 4 4
Kánara	11	12,882 13 0	4,287 3 0	8,595 10 0
Surat	8	10,044 13 8	7,095 10 1	2,949 3 7
Broach	15	13,912 0 10	5,561 11 2	8,350 5 8
Kaira	17	19,097 11 4	9,092 1 3	10,005 10 1
Panch Maháls	4	4,690 13 5	3,276 0 10	1,414 12 7
Ahmedabad	7	5,519 0 0	2,952 0 0	2,567 0 0
Karáchi	26	12,986 15 5	6,794 6 0	6,192 9 5
Hyderabad	35	28,665 10 10	17,202 0 9	11,463 10 1
Thar and Párkar	22	25,531 12 10	8,401 14 8	17,129 14 2
Lárkána	37	10,552 4 2	4,402 9 7	6,149 10 7
Sukkur	12	8,904 10 2	5,287 10 2	3,617 0 0
Upper Sind Frontier	2	3,059 3 5	2,169 0 8	890 2 9

With a view to furnishing the information required by Government Memorandum No. 7077, dated 15th December 1908, a reference was made to all Collectors asking for a detailed account of the work of the Village Sanitary Boards and Committees in their districts. Some of the Revenue Officers expressed an opinion on their efficiency. The Deputy Sanitary Commissioners are of opinion that very little useful work is done by them. The desire for sanitary reform is not wanting in every case, but under the most favourable circumstances the available funds barely suffice to support a modest conservancy establishment in some cases; while in others it is observed that money is wasted on keeping up staffs of sweepers, who are not properly looked after and consequently do little or no useful work. Many spend a large portion of their available means on lighting the streets, which, no doubt, is more favourably regarded by the inhabitants than sanitary improvements would be. But it is pointed out that this is a gross misapplication of funds and ought to be checked, as it is not one of the objects for which the money is collected.

The Collectors of Ahmednagar, East Khándesh, Belgaum, Dhárwár, Karáchi, Thar and Párkar and Upper Sind Frontier state that the Committees have worked well, even where official supervision could be only applied intermittently.

The Deputy Sanitary Commissioner, Western Registration District, states:— "Most of the Sanitary Committees about which information was available were doing fairly well, the main obstacle to their finance being the difficulty of recovering dues from recalcitrants. The construction of gutters, which seldom lead to any recognisable drainage outlet, is a favourite method for the expenditure of their funds. Those in East Khándesh appear on the whole to be in the most active condition."

The Deputy Sanitary Commissioner, Sind Registration District, states:— "Sanitary Committees in Sind seem as a rule to have but little sense of the responsibilities of their office as far as sanitation proper is concerned. It is

very rare for these bodies to initiate measures towards the cleanliness of their towns and it is usual to find defects pointed out at previous visits of the Deputy Sanitary Commissioner still existing."

"A large portion of the funds at the disposal of the Sanitary Committees is in many cases spent on matters not connected with sanitation. In one town, for example, more than half was spent on lighting—a refined luxury in the face of the essentially sanitary requirements of the town."

"Some of the committees seem to have gone more thoroughly into the matters, notably in the case of Jati, where an enlightened Sanitary Committee under the presidency of the Assistant Collector of the Division put all the recommendations into effect and in some respects went beyond the suggestions on the lines recommended."

68. At the beginning of the year under report there were 1,618 selected villages in which Sanitary Inspection Books were kept. Many of the headings therein, being quite inapplicable to the places concerned, a considerable number of them have been withdrawn during the last twelve months in accordance with Government Resolution, General Department, No. 3152, dated 18th June 1909. Two hundred and forty-three entries were made in these books by officers of the Sanitary Department.

69. During the year under report complete sanitary surveys on a uniform plan have been made of 52 towns and villages, which have been inspected by the Deputy Sanitary Commissioners, and there is now on record a considerable amount of valuable information showing the chief sanitary defects in them. Of these 8 were in the Western Registration District, 13 in Sind, 17 in Central, 5 in Southern and 9 in Gujarát. The Deputy Sanitary Commissioner, Central Registration District, also inspected the Mundhwa Distillery and the Electric Power Works at Lonávla. Copies of these reports were in almost all cases forwarded to the Local Revenue Officers concerned.

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

70. The office of the Sanitary Commissioner was held by Lieutenant-Colonel T. E. Dyson, I. M. S., from 1st January 1911 to 22nd November 1911 and by Major H. A. Forbes Knapton, I. M. S., from 23rd November to 31st December 1911.

71. During the year the following Collectorates were visited:—Kaira, Sholápur, Poona, Panch Mahals, Karáchi and Lárkána.

The Sanitary Commissioner also attended the "First All-India Sanitary and Malaria Conference" held in Bombay in November 1911.

72. The tours of the Deputy Sanitary Commissioners are described in the Report on Vaccination.

H. A. FORBES KNAPTON, Major, I. M. S.,
Acting Sanitary Commissioner.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE BOMBAY PRESIDENCY FOR THE YEAR 1911.

The Sanitary Board was constituted as under during the year:—

President.

The Honourable Surgeon-General H. W. Stevenson, I. M. S., J. P., Surgeon-General with the Government of Bombay, from 1st January to 11th May and again from 19th November to the end of the year.

The Honourable Colonel R. W. S. Lyons, M. D., I. M. S., Surgeon-General with the Government of Bombay, from 12th May to 17th November.

Members.

The Honourable Mr. G. S. Curtis, C.S.I., I. C. S., Commissioner, Central Division.

The Honourable Mr. W. L. S. L. Cameron, C.S.I., J. P., Chief Engineer, Public Works Department, from 1st January to 20th May 1911.

H. V. R. Kemball, Esq., C.E., F.U.B., Chief Engineer, Public Works Department, from 21st May to the end of the year.

Lieutenant-Colonel T. E. Dyson, M.B., C.M., D.P.H., I. M. S., Sanitary Commissioner for the Government of Bombay from 1st January to 22nd November 1911.

Major H. A. Forbes Knapton, I. M. S., Sanitary Commissioner for the Government of Bombay, from 23rd November to the end of the year.

H. V. R. Kemball, Esq., C.E., F.U.B., Sanitary Engineer and Secretary, from 1st January to 5th March 1911.

C. N. Mandy, Esq., C.E., Acting Sanitary Engineer and Secretary, from 6th March to 12th October 1911.

N. Belvadi, Esq., B.A., L.C.E., M.R.San.I., F.U.B., Sanitary Engineer and Secretary, from 13th October to the end of the year.

Meetings.

2. Five meetings of the Board were held during the year, on 4th and 27th January 14th July and 21st and 28th September. At these meetings, among other matters, schemes for the improvement of the water-supplies of Hyderabad (Sind) and Dhulia and for providing water-supplies to Lonávla, Igatpuri, Bársi, Málegáon and Karád were dealt with.

3. The following projects were sanctioned during the year:—

(1) Improving the storage capacity of the Dedargaon Tank (Dhulia Water-works). Estimated cost Rs. 69,000.

(2) Improvements to the Jejuri Water-supply. Estimated cost Rs. 13,722.

(3) Improving the Sanitary arrangements of the Sassoon Hospital at Poona. Estimated cost Rs. 13,798.

(4) Improving the Water-supply of the town of Alibág. Estimated cost Rs. 26,500.

(5) Additions and alterations to the Engine and Boiler House in connection with the Pandharpur Water-works. Estimated cost Rs. 6,745.

(6) Improvements to the Water-works at Hyderabad (Sind). Estimated cost Rs. 3,19,255.

Grants-in-aid.

4. Government were pleased to give during the year, the grants noted in the accompanying statement, for Sanitary works in the Presidency.

5. The following works were in progress during the year:—

A.—Water-supply.

(1) *Southern Division.*

(1) *Water-supply to the Lunatic Asylum at Ratnágiri.*—The work was practically completed, the outlay during the year being Rs. 11,415.

(2) *Roha Ashtami Water-works.*—A settling tank and a service reservoir were completed at a cost of Rs. 8,374.

(3) *Bijápur Water-works.*—All but the nalla portion of the tank dam was finished and arrangements have been made to complete the dam before 1st June 1912. The Outlet Tower, Engineers and Khalasis' Quarters, the Pump well and the Waste-weir were completed. Other items of work were in progress. The total outlay during the year was Rs. 1,51,053.

(4) *Dhárwár Water-works.*—The rear of the tank dam was properly drained and a Venturi Meter was set up. The High Service Reservoir was covered and the Distribution Service was extended to Gibb Town. The distribution in the city was completed and all Stand Posts were connected up. The tank did not receive any replenishment and was practically dry in December 1911. Proposals for increasing the catchment area of the tank were sent up and have been recently sanctioned. The expenditure during the year was Rs. 61,316.

(5) *Hubli Water-works.*—All buildings and Subsidence Tanks were nearly completed. Engines, Filters and pipes have been sent out and will be put up shortly. The Unkal Tank which is the storage reservoir for Hubli ran practically dry by December 1911 and temporary arrangements had to be made for pumping up water from wells excavated in the bed of the tank. The expenditure during the year was Rs. 38,080.

(2) *Central Division.*

(1) *Násik Water-supply.*—The filtration wells were completed and good progress was made on the Anandwali weir. The Service Reservoir and Water Tower were practically completed and the supply and Distribution Mains were laid down. Works in connection with the Pumping Station and Rising Main were in progress. The expenditure during the year was Rs. 1,54,342.

(2) *Poona Cantonment Water-supply.*—The Poncelet wheel in the Poona Pumping Station was removed and the work of providing two steam engines and Centrifugal pumps for pumping water to the settling tanks was in progress. The expenditure incurred was Rs. 5,076.

(3) *Jejuri Water-supply.*—The work was practically completed. The expenditure during the year was Rs. 10,490 against an estimate of Rs. 12,306.

(4) *Pandharpur Water-supply.*—The works were practically completed and water is now being pumped into the Service Reservoir. The expenditure during the year was Rs. 33,959, the total spent up-to-date being Rs. 4,03,235.

(5) *Poona City Water-supply.*—Substantial progress was made during the year. All buldings in connection with the scheme were practically completed, one settling tank was finished and the excavation for the other was in progress. Good progress has been made in the laying of the distribution mains. The total outlay on these works was Rs. 1,50,576.

(3) *Northern Division.*

(1) *Ahmedabad Water-supply.*—Repairs to the pumping engines were carried out at a cost of Rs. 34,717. The Managing Committee raised a loan of Rs. 3,50,000 for the improvement and extension of the water works. The work is being executed by the Executive Engineer, Ahmedabad. The total expenditure incurred during the year was Rs. 7,187.

(4) *Sind.*

(1) *Karáchi Water Works.*—The Municipality raised a loan of Rs. 6,79,500 and arranged to start the construction of a third covered reservoir to hold 6 million gallons of water and a second large conduit from the river bed at Dumlotte to the junction tank near Malir Wells, and to lay down new distribution pipes. The expenditure on these works was Rs. 1,13,510. New water-mains aggregating in length to 5,300 feet were laid down in areas not hitherto supplied with pipe water at a cost of Rs. 6,152, which was met from Revenue and not from Loan Funds.

(2) *Hyderabad Water Works.*—Revised plans and estimates, the latter amounting to Rs. 3,19,255, for improving the water-supply were sanctioned. Provision was made to supply 25 gallons of water per head per day to a population of 85,000. The new Pumping Engines and Boiler were brought into use and the earthen settling tanks at Gidu were practically completed. The leakage in the masonry service reservoir in the Fort was stopped by providing a lining of Callendrite, the supply conduit of masonry was enlarged and the distribution system was improved and extended. The total expenditure during the year was Rs. 1,25,054.

B.—DRAINAGE.

(1) *Central Division.*

(1) *Poona City Drainage.*—21,000 Rft. of sewers with subsidiary works—out of a total of 151,000 Rft.—were completed and work in all sections was vigorously started. The Engine House, the Central Pumping Station and Quarters for establishment were practically completed. The expenditure incurred on these works was Rs. 2,83,787.

(2) *Northern Division.*

(1) *Ahmedabad Drainage.*—The engines of the Drainage Pumping Station which had been worn out were thoroughly repaired and are now in good working order. New accessories were purchased and 3,500 Rft. of new Sewer Pipes were added to the Sewerage System. A new engine house for locating the old Astodia Engine was built. The total expenditure incurred during the year on original works was Rs. 35,350.

(2) *The Sewage Farm.*—The Sewage Farm was improved by the addition of 6,600 Rft. of kacha distributaries and 12,500 Rft. of old carriers were also thoroughly repaired. The Committee of Management raised a loan of Rs. 50,000 for the development of this farm, and it is confidently hoped that the farm will soon bring in a large revenue every year and become a valuable Municipal asset.

(3) *Sind.*

(1) *Karáchi Drainage.*—The work of extending the Shone System of Sewerage to the Muchi Meani Quarter was continued during the year. The total expenditure was Rs. 48,544. The Sewage Farm is working satisfactorily.

6.—New Works and Improvements under consideration.

Detailed plans and estimates for the water-supply of Bársi were prepared and are now under the consideration of Government. An alternative scheme costing Rs. 7,46,000 for the water-supply of Ahmednagar by gravitation was prepared and the project is now before Government. Surveys for an impounding reservoir for the combined water-supply of the City and Cantonment of Belgaum were completed and detailed plans and estimates are now being worked out. A scheme for the water-supply of Uran and Khárápat villages of the Panvel Táluka was investigated but details have not yet been settled out. Proposals for the improvement of the water-supply of Jalgáon are under the consideration of the Municipality and surveys for the water-supply of Saundatti and Yellámmás Hill and Nandurbár, and for the sewerage of Jalgáon, Baroda Cantonment and Dhulia were completed. The question of providing satisfactory water-supplies to Yeola, Dholka, Viramgám, Khárághoda, Broach and Godhra is under consideration. A scheme for improving the water-supply of Sukkur was prepared by the Executive Engineer, Shikárpur, and was returned for revision.

Applications have been received from several Municipalities for advice and practical help.

7.—Boring Work in Guzerát.

During the year under report three steam and two hand power Calyx drills were purchased and work was commenced at Broach, Khárághoda, Sábarmati, Kelva-Máhim and Nandurbár. The work of investigating the nature of the deep well supply of water in Guzerát is under investigation and the results promise to be very interesting. It may be mentioned that an artesian supply of water yielding 25,000 gallons of water per hour has been tapped at Khárághoda where the question of water-supply to the Government Salt Works was causing grave anxiety. Equally good results may be hoped for elsewhere in Guzerát. A sum of Rs. 31,780 was spent on working boring plants during the year.

8.—General.

An experimental Sewage Installation was established at Poona and interesting experiments on the disposal of sewage are being conducted by Major F. H. G. Hutchinson, I. M. S., Deputy Sanitary Commissioner, who has been deputed for this work. The expenditure on this installation was Rs. 7,661 during the year.

9.—The Agricultural Engineer.

The Agricultural Engineer inspected Municipal pumping installations and submitted interesting reports on the condition of the plants. These reports were forwarded to the authorities concerned for taking necessary action. These inspections proved very useful as in some cases the engines had been so misused that but for the timely action taken on the advice of the expert Engineer there would have been break-downs which would have seriously menaced the health of the Municipal towns concerned.

The Sanitary Engineer.

The Sanitary Engineer toured round the Northern and Central Divisions inspecting works in progress or under contemplation and giving advice locally on matters where the local authorities seemed anxious to effect improvements. The acting Sanitary Engineer (Mr. C. Mandy) held charge of his office in addition to his own duties as Engineer in charge of the Poona Drainage and Water-supply District which interfered with his making a more extensive tour. The present Sanitary Engineer took charge of his duties on 13th October 1911.

Statement showing Grants-in-aid sanctioned during 1911 for Sanitary Works.

Name of work.	Amount of grant.	Authority of Government Resolution.
	Rs.	
(1) Alibág Improvements to water-supply ...	13,250	Government Resolution, General Department, No. 1097 of 20th February 1911.
(2) Sholápur Improvements to water-supply.	45,000	Government Resolution, General Department, No. 1444 of 8th March 1911.
(3) Násik water-supply	14,000	Government Resolution, General Department, No. 1641 of 17th March 1911.
(4) Pen Improvements to water works ...	6,000	Government Resolution, General Department, No. 1652 of 18th March 1911.
(5) Násik water-supply scheme	96,852	Government Resolution, General Department, No. 4190 of 11th July 1911.
(6) Jalgáon water-supply	30,000	Government Resolution, General Department, No. 4315 of 15th July 1911.
(7) Pandharpur water-supply...	2,745	Government Resolution, General Department, No. 6327 of 28th October 1911.
(8) Poona City Drainage and water-supply...	2,75,000	Government Resolution, General Department, No. 3487 of 8th June 1911.
(9) Working the Sewage Installation at Poona.	14,000	Government Resolution, General Department, No. 6327 of 28th October 1911.
(10) Násik Town improvement scheme ...	27,500	Government Resolution, General Department, No. 1658 of 18th March 1911.
(11) Ahemdnagar Town improvement scheme,	27,500	Government Resolution, General Department, No. 1658 of 18th March 1911.
(12) Ahmednagar—A public park at... ...	2,500	Government Resolution, General Department, No. 2886 of 12th May 1911.
(13) Faizpur Town improvements	30,000	Government Resolution, General Department, No. 4782 of 8th August 1911.
(14) Belgaum Sanitary improvements ...	1,154	Government Resolution, General Department, No. 6456 of 6th November 1911.
(15) Development of Salsette	20,000	Government Resolution, General Department, No. 4404 of 19th July 1911.

N. BELVADI,
Secretary, Sanitary Board, Bombay Presidency.

APPENDIX II (*a*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31ST DECEMBER 1911.

I.—SUMMARY.

The inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the harbour and docks during the year ending 31st December 1911 is given in the following summary:—

1,057 vessels of all sorts with 205,207 crew and passengers were examined as against 1,012 vessels with 176,925 crew and passengers during the preceding year.

The clothing, bedding and other articles of 106,766 members of crews and passengers of outgoing and incoming vessels and of members of crews of vessels lying in the Port were disinfected. Of these 96,379 were Asiatic and African members of crews, third class or deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India and 10,387 were members of crews, passengers and pilgrims who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while lying in the Port.

41 vessels on which cases of infectious diseases had occurred were disinfected and 28 vessels which carried pilgrims to Jeddah were thoroughly cleansed and freed from rats, cockroaches, etc., by means of sulphur dioxide gas generated in a Clayton apparatus. In all 69 vessels of all sorts were disinfected. 120 persons among whom cases of small-pox had occurred were vaccinated. In addition to this number 15,140 outgoing pilgrims were vaccinated by a special vaccinating staff lent by the Municipality under the supervision of the Police Commissioner. Many pilgrims had also been vaccinated in other Provinces and Native States before their departure for Bombay. Including these it is probable that more than 50 per cent. of the departing pilgrims were thus afforded protection from contracting small-pox in the Hedjaz.

II.—OUTGOING VESSELS.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P., dated the 14th June 1899, and No. 2671-P, dated the 2nd October 1902, the medical examination of all vessels, crews and passengers proceeding to ports out of India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with berth accommodation, of fourth class and deck passengers, and of all Asiatic and African servants who sailed on such vessels were carried out immediately before they left the Port of Bombay.

3. 874 outward bound vessels (including Native sailing craft) with 77,812 crew and 81,977 passengers or a total of 159,789 persons were inspected as against 888 vessels with 75,003 crew and 62,598 passengers or a total of 137,601 persons during the preceding year.

4. The bedding, boxes and suspected articles of clothing, etc., of 47,270 Asiatic and African members of crews and of 47,076 third, fourth class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the clothing, bedding and other effects of 1,909 members of crews and 124 passengers who sailed in Native craft for ports out of India were also disinfected. Thus the total number of outward bound crew and passengers whose clothing, bedding, etc., were disinfected comes to 96,379 during the year under report as against 80,776 during the year 1910.

5. A few vessels had cases of infectious diseases among their crews or passengers within 12 days prior to their departure from this Port. The Bills of Health granted to these mentioned the illness which had occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of the disease on board or at other ports.

III.—INCOMING VESSELS.

6. In accordance with the Rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, *vide* Notification, General Department (Plague), No. 1645-P, dated the 12th March 1900, and Notification, General Department, No. 625, dated the 1st February 1905, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P, dated the 31st March 1900, medical inspection and disinfection of vessels which were actually infected or suspected to be infected were carried out. All pilgrim-ships and all vessels which arrived from East African Ports were also inspected on arrival.

7. 175 incoming vessels of various kinds with crews aggregating 12,558 persons and 31,954 passengers were inspected during the year. Of the 175 vessels inspected 18

were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. One of these was a troop-ship arriving with 235 crew and 1,540 passengers among whom 4 cases of chicken-pox had occurred. The patients were taken charge of by the Military Authorities for treatment in their hospital. The clothing and bedding of the crew were thoroughly disinfected. 3 were vessels from East African Ports with 280 crew and 479 passengers among whom 5 cases of jigger had occurred and from whom 1 case suspected of having sleeping sickness was removed for observation to a special shed provided for that purpose at the Arthur Road Hospital. The cases of jigger were removed to the Goculdas Tejpal Hospital for treatment. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. The clothing and bedding of the crews were also disinfected. The case suspected of having sleeping sickness was, after suitable observation, found not to be suffering from that disease. 6 were vessels from Jeddah with 507 crew and 3,915 pilgrims among whom 3 cases of plague, 4 cases of cholera, 6 cases of small-pox and 1 case of chicken-pox had occurred. In addition to these cases 2 cases of cholera, 2 cases of small-pox and 1 case of chicken-pox are reported to have occurred among the crews and pilgrims of 4 other vessels during their return voyage to Bombay, but no signs of infection were apparent on arrival here. Of the 3 cases of plague one suspected case was landed at Muscat, one died on arrival in Bombay and one was removed to the Maratha Plague Hospital. Of the 6 cases of cholera two were landed at Jeddah and four died between Jeddah and Perim. Of the 8 cases of small-pox three were landed at Perim, one was landed at Aden and four were removed to the Arthur Road Hospital at Bombay. Of the 2 cases of chicken-pox one was convalescent on arrival in Bombay and the other was removed to the Arthur Road Hospital for treatment. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations up-country. The vessels were disinfected and were also fumigated by the Clayton apparatus, the bedding and effects of crews being separately disinfected.

IV.—Infectious Diseases on Vessels Departing and Arriving and in the Harbour and Docks.

8. Tabular Statement No. 1 gives the number of cases of infectious diseases which occurred on vessels departing, arriving, and in the harbour. It will be seen that 39 cases occurred on vessels arriving as follows:—4 cases of plague, 6 cases of cholera, 10 cases of small-pox, 1 case of measles, 12 cases of chicken-pox, 1 case suspected of having sleeping sickness and 5 cases of jigger; and that 2 cases of plague, 1 case of small-pox and 2 cases of measles are reported to have been landed at Aden from ships which had left Bombay. Of these latter, one of the plague cases, a postal packer, did not develope signs of plague until the day after arriving in Aden by the S. S. "Mantua" (P. and O. S. N. Co.) and the history of the other (from the Austrian Lloyd's S. S. "Africa") is that he was attacked with fever two days before arriving at Aden and was removed because he had slightly enlarged and tender glands in the right groin; as he was discharged cured in eight days and diagnosis was not confirmed bacteriologically it is doubtful whether this was a case of plague. The small-pox case was removed from the S. S. "Rokeby" and showed no signs of infection when leaving Bombay. The two cases of measles were from among European passengers (a lady and her daughter) on S. S. "Mantua".

9. Tabular Statement No. 2 gives details of infectious diseases on vessels in the harbour and docks. The clothing and bedding of the crews of these vessels aggregating 906 persons were disinfected. All these vessels were thoroughly disinfected.

10. In January 1911 the wife of a Port Trust employee, Hydraulic Foreman, working in the Victoria Docks and residing in one of the Port Trust servants' quarters, died of cholera. The necessary steps for the disinfection of the room occupied by the deceased were taken by the Dock Authorities.

V.—Disinfection and Fumigation of Ships.

11. During the year under report 69 vessels of all sorts were disinfected under the personal supervision of the Port Health Officer or of one of the Port Health Staff. Of the 69 vessels, 28 were outward bound pilgrim-ships, and 9 were incoming vessels which brought pilgrims from Jeddah to Bombay.

12. The fumigation of 57 vessels including 37 outward and inward pilgrim-ships was carried out by means of the Clayton process under the supervision of the Port Health Officer.

13. All vessels on which cases of plague occurred had their holds thoroughly fumigated.

14. The Port Disinfection Station received every Monday clothing and bedding from various hospitals for disinfection. 221 bundles containing such clothing and bedding were disinfected against 277 during the previous year.

VI.—General Health of the Shipping.

15. During the year under report 951 persons connected with the shipping were admitted into the various hospitals in the city. The St. George's Hospital admitted 454 European

patients of whom 20 died, 422 were discharged cured and 12 remained under treatment after the 31st December 1911. The Jamsetjee Jijibhoy Hospital admitted 100 Native patients of whom 9 died, and the Gokuldas Tejpal Hospital 388 Natives, of whom 40 died.

16. No death occurred in connection with the cleansing of bilges of ships during the year. There were 256 accidents on board of vessels which were lying in the harbour or docks. Of these 25 proved fatal.

VII.—Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

17. In accordance with the Government of India's Notification, Home Department (Sanitary), No. 1606, dated the 13th July 1908, and Government Resolution, General Department, No. 4361, dated the 18th August 1909, the Port of Bombay was opened for the embarkation of Mahomedans making a pilgrimage to Mecca *vid* Jeddah. Before the pilgrims embarked, the ships were thoroughly cleansed and freed from rats by means of the Clayton process. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark.

18. The names of the ships, the numbers of pilgrims carried by them, and the dates on which they left Bombay for Jeddah are given below :—

	Name of vessel.	Number of pilgrims sailed.	Date of Departure.
1.	S. S. "Khosrou"	870	23rd July 1911.
2.	S. S. "Islami"	770	6th August 1911.
3.	S. S. "Homayun"	833	20th do.
4.	S. S. "Shah Jehan"	1,401	24th do.
5.	S. S. "Mohammadi"	656	30th do.
6.	S. S. "Khosrou"	914	6th September 1911.
7.	S. S. "Naderi"	518	12th do.
8.	S. S. "Rahmani"	711	20th do.
9.	S. S. "Fakhri"	926	22nd do.
10.	S. S. "Islami"	770	22nd do.
11.	S. S. "Homayun"	846	29th do.
12.	S. S. "Saifi"	494	4th October 1911.
13.	S. S. "Mohammadi"	652	4th do.
14.	S. S. "Mansuri"	696	18th do.
15.	S. S. "Khosrou"	922	20th do.
16.	S. S. "Majidi"	698	24th do.
17.	S. S. "Shah Jehan"	1,399	24th do.
18.	S. S. "Rahmani"	711	28th do.
19.	S. S. "Islami"	780	29th do.
20.	S. S. "Fakhri"	1,004	2nd November 1911.
21.	S. S. "Homayun"	846	3rd do.
22.	S. S. "Sofala"	1,593	3rd do.
23.	S. S. "Norkoowa"	480	5th do.
24.	S. S. "Nawab"	873	5th do.
25.	S. S. "Shah Ameer"	735	7th do.
26.	S. S. "Mohammadi"	653	8th do.
27.	S. S. "Saifi"	492	8th do.
28.	S. S. "Lawoe"	609	11th do.
	Total ...	22,852	

19. It will be seen that 22,852 pilgrims left during the season as against 18,014 in the previous year.

20. The classification of the pilgrims is as follows :—

370	Bombay City.	642	Chinese Territory.
2,611	Bombay Presidency (including Sind).	1,707	Afghanistan.
1,225	Madras Presidency.	108	Beluchistan.
1,418	Bengal Presidency (including Behar).	60	Persia.
4,782	Eastern Bengal and Assam.	771	Russian Territory.
2,936	United Provinces and Oudh	41	Arabia.
2,492	Punjab and North-West Provinces.	2	Africa.
288	Central Provinces.	891	Java.
87	Central India.	2	French India.
236	Burma.	11	Turkey in Asia.
13	Ceylon (British Colony).	887	Unclassified.
1,272	Native States of British India.		
17,730		5,122	

Total ... 22,852

21. 15,140 out-going pilgrims were vaccinated before starting by a special staff placed under the Police Commissioner by the Municipality. Besides these, many pilgrims from other Provinces and Native States had been vaccinated before leaving their homes for Bombay. It is thus probable that three-fourths of the pilgrims had been persuaded to voluntarily undergo vaccination and, considering that most of these were illiterate and many fanatical, it reflects the greatest credit on the Pilgrim Department under the Commissioner of Police and others who aided in persuading so large a percentage to avail themselves of the measure. It is hoped that the degree of immunity thus afforded will materially reduce the risk of infection in the Hedjaz.

22. A fully equipped plague observation station, capable of receiving an entire ship-load of pilgrims from a plague-infected vessel for treatment under Article 21 of the Paris Convention, was established at Perim. All the pilgrim-ships, after having been inspected at Aden or Perim, called at Camaran where they landed their passengers to undergo observation according to Turkish Rules before the Turkish Authorities allowed them to proceed to Jeddah.

23. So far as I can gather there was no case of plague or cholera among the pilgrims who left for Mecca during the year under report. When outbreaks of plague occur among the pilgrims congregated at Mecca it should be remembered that the disease is, and has been for generations, endemic in the Hadramaut and in part of the Red Sea Coast of Arabia, as otherwise other countries may be blamed unjustly for the spread of the disease.

24. From the medical diaries of the doctors in medical charge of pilgrim-ships it appears that there were 102 deaths between Bombay and Jeddah. The causes are attributed to fever, old age, general debility, diarrhœa, dysentery, heart disease, phthisis, pneumonia, etc. The number mentioned above does not include the deaths which took place at Camaran while the pilgrims were undergoing quarantine.

25. During the season under report no doctor was appointed to the medical charge of a pilgrim-ship unless he was in possession of either a degree, or at least the license of a recognised Indian University, or the qualification of a Military Assistant Surgeon. The class of medical officer offering was well up to the average.

B.—Inward Pilgrim Traffic.

26. During the year under report 14,146 pilgrims of the previous year's Haj and 4,725 of that of 1911 arrived from Jeddah in 29 vessels. The names of the ships and the number of pilgrims brought by each vessel, as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay, are tabulated in Statement No. 3 which is attached to this report.

27. The total number of deaths which occurred at sea among the returning pilgrims was 465. The chief causes were old age, general debility, dysentery, diarrhœa and privation.

28. Ten pilgrim-ships had, during their voyage from Jeddah to Bombay, 3 cases of plague, 6 cases of cholera, 8 cases of small-pox and 2 cases of chicken-pox. Of the 3 cases of plague one case suspected to be of plague was landed at Muscat. One died on arrival at Bombay and one was removed on arrival here to the Marátha Plague Hospital. Of the 6 cases of cholera four died between Jeddah and Perim and two cases occurred among the crew who where landed at Jeddah on the day of the departure of their ship with pilgrims for Bombay. Of the 8 cases of small-pox, three were landed at Perim, one at Aden and four arrived at Bombay where they were removed to the Arthur Road Hospital for treatment. Of the 2 cases of chicken-pox one was convalescent on arrival at Bombay and the other was removed to the Arthur Road Hospital for treatment. Vaccination was offered to the pilgrims among whom small-pox had occurred, but only 120 availed themselves of the measure.

29. Two plague-infected vessels were thoroughly fumigated by the Clayton apparatus and seven others at the request of the owners. 3,915 pilgrims, among whom cases of plague, cholera and small-pox had occurred, had their clothing and bedding disinfected before they were handed over to the Protector of Pilgrims for despatch to their homes. The effects of 507 members of crews of the infected ships were also disinfected.

VIII.—Emigration Traffic.

30. Owing to the prevalence of plague in the City of Bombay, the Emigration Traffic has been suspended since the year 1897.

IX.—Sanitary State of the Harbour and Foreshore.

31. The sanitary state of the harbour and of the various bandars, basins and docks was fairly satisfactory.

X.—Cholera, Small-Pox and Plague in the City of Bombay.

32. During the year under report 123 deaths from cholera, 443 deaths from small-pox and 4,006 deaths from plague occurred in the City of Bombay.

XI.—Establishment.

33. From 28th January to 22nd September 1911, Major J. L. Marjoribanks, M. D., D. P. H., I. M. S., acted as Port Health Officer, the undersigned being in charge for the remainder of the year.

34. The following list shows the names of the Medical Officers and Subordinates who did duty under the Port Health Officer from time to time during the year :—

Names.	Period of service.
	Y. m. d.
Lieutenant H. W. deB. Prescott, I.S.M.D.	0 4 8
Dr. (Miss) S. Smith	1 0 0
Assistant Surgeon H. F. Otto, I.S.M.D	1 0 0
Do. J. F. Menezes, I.S.M.D.	0 1 0
Do. A. B. D'Souza, I.S.M.D.	0 2 5
Sub-Assistant Surgeon Baldevbhai M. Bhatt	1 0 0
Do. Framroz H. Anklesaria	1 0 0
Do. N. M. Vakharia	0 4 12

35. The above staff carried out their duties with much zeal and tact and to my entire satisfaction.

The work was heavy during the pilgrim season and no English doctor being then available the services of a Commissioned Medical Officer had to be engaged on two occasions under Government Resolution, General Department, No. 4087, dated 27th July 1897.

36. Inspector A. Dixon in charge of the Sanitary Police controlled the staff under him and discharged his onerous duties in a most exemplary and praiseworthy manner. To his tact and attention to detail is largely due the freedom from friction which characterized the year's work.

Mr. Shamrao S. Dhurandhar.
Mr. Dattatraya V. Gokhale.

37. Mr. Ramrao G. Kamalakar and the marginally noted members of the office staff under him performed their duties most satisfactorily.

38. The office peons and all the members of the disinfection and steam launch establishments worked satistactorily.

39. Mr. Abdulla Ahmed, the Protector of Pilgrims, Miss Engineer and Miss Jessop, the Lady Inspectors who were detailed to count and disinfect female pilgrims from time to time, Mrs. Currie, Lady Superintendent of Pilgrims, Mr. H. M. Robottom, the Inspector of the Preventive Service, and the Dock Police under Superintendent J. Walton rendered much help to the Port Health Staff while carrying out the inspection and disinfection of pilgrims and in connection with their despatch from the disinfection station to the steamers by which they travelled.

40. I am also indebted for valuable assistance in the embarkation of pilgrims and otherwise to Mr. C. R. Watkins, Assistant Collector of Customs, who gave up much of his time in order to help in securing harmonious working between the different departments concerned.

41. The shipping agents and commanders of vessels, as a rule, observed the regulations, and carried out cheerfully the orders framed in connection with the Paris Sanitary Convention.

W. E. JENNINGS, M.D., D.P.H.,
Lieut.-Colonel, I. M. S.,
Health Officer of the Port.

Bombay Port Health Office:
Town Customs House, dated 1st March 1912.

TABLE No. 1.

The following tabular statement gives a summary of the Shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1911 :—

Vessels, including Country Craft.	Number of Vessels inspected.	Number of persons including Crew of Vessels.	Number of Native Crew and 3rd Class or Deck passengers disinfected.	Number of Vessels disinfected and fumigated.	Number of persons vaccinated.	Diseases and number of cases of each.							
						Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Sleeping sickness.	Scarlatina.
1911.													
Entered	175	44,512	9,481	18	120	4	6	10	1	12	5	1	...
Left	874	150,789	96,379	43	15,140	2	...	3	3	...	...	...	...
In harbour during the year	8	906	906	8	.....	1	2	3	3	1	...	...	...
Total ...	1,057	205,207	106,766	69	15,260	7	8	16	7	13	5	1	...
Total for 1910 ...	1,012	176,925	100,727	56	8,737	18	1	139	8	6	8	...	1

TABLE No. 2.

The following table includes all steamers, square-rigged vessels and Native sailing craft which became infected while lying in the Port of Bombay during the year 1911 :—

Months.	Number of persons who were attacked with infectious diseases at the Bandars and in Docks.		Total number of infected vessels.	Total number of cases of infectious diseases in the Bombay Harbour.					Number of crew disinfected.
	Plague.	Cholera.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	
1911.									
January	...	1	...	...	...	...	...	...	...
February	...	...	1	...	...	...	1	...	...
March	...	...	1	1	...	...	...	...	288
April	...	...	1	...	...	1	...	...	26
May	...	...	1	...	...	...	1	...	179
June	...	...	1	...	1	...	...	...	2
July	...	...	1	...	...	2	...	...	67
August	...	...	1	...	...	...	1	...	78
September	...	...	...	...	...	...	...	...	...
October	...	...	1	...	...	...	...	1	266
November	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...
Total ...	...	1	8	1	1	3	3	1	906
Total for 1910 ...	...	1	7	1	...	4	...	3	454

TABLE No. 3.

Statement showing the number of pilgrims who returned to Bombay from Mecca by vessels during the year 1911:—

No.	Name of Ship.	Date of arrival.	Number of crew inspected.	Number of pilgrims inspected.	Number of deaths during voyage.	Number of cases of infectious diseases on board during voyage on arrival.		Number of persons vaccinated.	Remarks.
						On arrival.	During voyage.		
1	S. S. "Firozi" ...	7th January 1911 ...	87	933	30	...	...	...	
2	S. S. "Homayun" ...	10th do. ...	87	835	19	...	1	...	One small-pox case landed at Perim.
3	S. S. "Fakhri" ...	10th do. ...	91	960	36	...	...	...	
4	S. S. "Majidi" ...	11th do. ...	79	196	13	...	...	...	496 pilgrims landed at Karáchi. 48 left the ship while at anchor at Karáchi without the knowledge of the authorities.
5	S. S. "Najmi" ...	13th do. ...	96	207	33	...	...	...	650 pilgrims landed at Karáchi.
6	S. S. "Rahmani" ...	15th do. ...	83	737	9	...	...	...	
7	S. S. "Shah Jehan" ...	17th do. ...	95	1,343	56	...	...	...	
8	S. S. "Khosrou" ...	20th do. ...	91	811	8	1	...	...	One chicken-pox case (convalescent).
9	S. S. "Homayun" ...	21st February 1911 ...	91	812	11	...	...	...	
10	S. S. "Khosrou" ...	25th do. ...	90	866	13	2	...	...	Two small-pox cases removed to Arthur Road Hospital.
11	S. S. "Islami" ...	3rd March 1911 ...	80	897	14	...	2	...	One small-pox case landed at Perim and one plague case landed at Muscat.
12	S. S. "Siberian" ...	10th do. ...	91	636	10	...	...	...	
13	S. S. "Budrie" ...	10th do. ...	85	764	36	...	2	...	Two cases of cholera among members of crew, landed at Jeddah.
14	S. S. "Fakhri" ...	13th do. ...	88	962	10	...	...	...	
15	S. S. "Firozi" ...	14th do. ...	82	935	13	...	...	...	
16	S. S. "Shah Jehan" ...	17th do. ...	95	1,403	14	...	...	...	
17	S. S. "Majidi" ...	18th do. ...	78	720	17	1	1	...	One small-pox case landed at Aden, one on arrival at Bombay.
18	S. S. "Mahommadi" ...	2nd April 1911 ...	76	163	3	3	...	...	One chicken-pox and one plague case on arrival; one died while in harbour.
19	S. S. "Islami" ...	14th do. ...	77	91	...	...	...	...	
20	S. S. "Firozi" ...	18th May 1911 ...	73	103	...	...	...	...	
21	S. S. "Mahommadi" ...	26th do. ...	110	103	...	...	...	...	
22	S. S. "Alavi" ...	27th June 1911 ...	84	71	...	...	...	...	
23	S. S. "Majidi" ...	24th July 1911 ...	79	59	...	...	...	...	
24	S. S. "Homayun" ...	26th December 1911 ...	88	799	10	...	...	...	
25	S. S. "Rahmani" ...	26th do. ...	87	709	7	...	...	...	
26	S. S. "Budrie" ...	27th do. ...	79	689	22	...	...	...	
27	S. S. "Sofala" ...	28th do. ...	103	1,483	38	...	4	...	Four cholera cases include one suspected. All died between Jeddah and Perim.
28	S. S. "Islami" ...	28th do. ...	74	768	18	...	1	...	One small-pox case landed at Perim.
29	S. S. "Shah Ameer" ...	30th do. ...	80	277	25	1	...	...	One small-pox case. 528 pilgrims landed at Karáchi.
		Total ...	2,499	18,871	465	8	11	120	

APPENDIX II *(b)*.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF KARA'CHI FOR THE YEAR ENDING 31ST DECEMBER 1911.

Port Health Office and
Disinfection Camp, Grass Bunder,
Karáchi, dated the 30th January 1912.

OUTGOING VESSELS.

During the year under report 453 outward-bound steam vessels were inspected and given bills of health by the Health Officer of the Port.

Of this number 304 were proceeding to Aden, the Red Sea and Europe, and 149 to other ports out of India including the Persian Gulf.

In addition, 3 steamers which called at Karáchi with pilgrims who were returning to Karáchi and Bombay from Jeddah had their bills of health duly endorsed when they sailed hence to Bombay after their crews and passengers had been medically inspected. Thus the total number of bills of health issued to steamers leaving this port was 456, as against 442 during the preceding year.

Bills of health were also given after inspection to 220 country boats as against 234 country boats during the preceding year.

The native crews and deck passengers of all vessels proceeding to ports out of India were medically inspected, and their bedding and clothing were disinfected by steam at the Port Health Camp. The crews and passengers' boots and shoes when requiring disinfection were exposed to the action of formaldehyde gas.

IN-COMING VESSELS.

113 steam vessels and 21 country boats were inspected for the existence of infectious diseases, as against 60 steam vessels and 12 Country boats during the preceding year. Of these 113 steamers, 7 (pilgrim vessels) arrived from Jeddah *vid* Aden, 3 (troopships) from Southampton *vid* Aden, 76 from East African ports, and the remaining 27 from various other ports. The 21 country boats all arrived from East African ports.

The following tabular statement shows the number of vessels, crews and passengers inspected during the year :—

	Vessels.			Crews and passengers.		
	Steamers.	Country boats.	Total.	Steamers.	Country boats.	Total.
In-coming	113	21	134	20,451	333	20,784
Out-going	456	220	676	58,505	2,633	61,138

Out of the total number (81,922) of crews and passengers who were medically inspected as shown above, 42,265 persons also had their clothing and bedding disinfected. The corresponding figures for last year were 68,662 and 35,377, respectively.

On several occasions during the past year the clothing and bedding of patients suffering from infectious disease as well as the clothing and bedding of "contacts" were sent from the Epidemic Diseases Hospital, the Civil Hospital, the Native Infantry Hospital, and other places in Karáchi to the Port Health Camp for disinfection, and were duly disinfected by steam in the "Equifex" stove.

P. AND O. MAIL PASSENGERS.

Three hundred and thirty saloon passengers proceeding to Europe *vid* Bombay were medically inspected on shore at Karáchi and given passes for direct transhipment to the P. and O. mail steamers at Bombay.

MONSOON ARRANGEMENTS.

During the monsoon season (30th May to 3rd September 1911) the disinfection of crews and deck passengers of steamers proceeding to the Persian Gulf from Bombay *vid*

Karáchi was carried out at Bombay instead of at Karáchi, in accordance with Government Resolution No. 1427-P. of 29th November 1909. During the period of their stay in Karáchi harbour these steamers were placed in strict quarantine, the coolies being disinfected and medically inspected at the Port Health Camp before being allowed on board to work cargo. After the 3rd September 1911 the disinfection of the steamers in question was carried out in Karáchi in accordance with the abovementioned Government Resolution.

Plague.

No cases occurred in the harbour or amongst the shipping visiting the port during the year under review.

On the 24th March 1911 telegraphic information was received from the Port Health Officer, Bombay, to the effect that a case of Plague which occurred amongst the native crew of the R. I. M. S. Dufferin at Bombay had been removed to hospital and that before sailing from Bombay for Karáchi the vessel had been fumigated and her crew and passengers disinfected and inspected. Accordingly, on the arrival of the "Dufferin" at Karáchi the crew and passengers were medically inspected and found to be free from plague. Later on, when the vessel sailed for Hongkong with native troops and followers, the latter, together with the native crew, were all duly disinfected and medically inspected at the Port Health Camp on the day of sailing.

Cholera.

During the past year 2 cases were removed from in-coming vessels in the harbour to the Epidemic Diseases Hospital, Karáchi, 4 cases were reported by in-coming vessels as having occurred on board during the voyage from the Persian Gulf to Karáchi and been landed at Bushire, Mahomerah, and Bahrein, *viz.*, 2 cases from the S. S. "Lindula" and 2 cases from the S. S. "Dumra." These steamers having already undergone quarantine and disinfection at Bushire and Bahrein, on their arrival at Karáchi their crews and passengers were medically inspected and found to be well. Accordingly, when these steamers continued their voyage to Bombay from this port a telegram was despatched to the Port Health Officer of Bombay informing him of the abovementioned occurrences.

Five deaths from cholera were reported by vessels arriving at Karáchi from the Persian Gulf as having occurred on board during their voyage. On arrival here their crews and passengers were medically inspected and found to be well. Telegraphic information to this effect was therefore sent to the Port Health Officer of Bombay when the vessels in question sailed hence for Bombay.

Small-pox.

Three cases were removed from in-coming vessels in the harbour to the Epidemic Diseases Hospital on shore, and 15 deck passengers embarking at Karáchi were rejected at the usual disinfection and medical inspection of deck passengers at the Port Health Camp, as they were found to be suffering from small-pox.

Telegraphic information having been received on the 13th March 1911 from the Port Health Officer, Bombay, to the effect that 3 cases of small-pox had been removed to hospital from the native crew of the S. S. "Linga" and that the vessel and her crew had been disinfected in Bombay before sailing for Karáchi, on her arrival here the "Linga" was boarded and the crew and passengers were medically inspected. They were found to be well, but as a precautionary measure the entire crew of the "Linga" (numbering 106) were re-vaccinated in Karáchi Harbour before sailing again for Bombay, and the ship's boat in which the three cases of small-pox had been isolated when they were first discovered at Bombay was thoroughly disinfected.

Chicken-pox.

During the past year 6 cases from the Goanese saloon crew of the hired transport "Rewa" were removed to the Epidemic Diseases Hospital, and 2 cases were discovered at different times amongst deck passengers when undergoing the usual medical inspection at the Port Health Camp before embarkation.

Measles.

Six cases occurred on board the hired transport "Rewa," *viz.*, 5 amongst the Non-Commissioned Officers and men and 1 amongst the Goanese saloon crew. The latter was sent to the Epidemic Diseases Hospital, while the other 5 patients were taken charge of by the Military Medical Authorities. At the request of the Principal Medical Officer, Sind District, the hammocks, pillows and bedding, etc., which had been used by the troops on board the transport "Rewa" were disinfected by steam at the Port Health Camp before being used again on the return voyage.

Jigger and Sleeping Sickness.

No cases of these diseases were detected during the past year.

Diseases other than the abovementioned.

During the year under report 146 deaths from natural causes (*e.g.*, old age, general debility, privation, etc.) were reported as having occurred on board of vessels either during the voyage or in Karáchi Harbour. Of this number, 122 deaths occurred on pilgrim ships.

Nineteen cases of illness of all sorts (*e.g.*, malarial fever, typhoid fever, dysentery, diarrhœa, erysipelas, etc.) amongst ships' crews and passengers were detected in the course of medical inspection and disinfection, and removed for treatment to the Civil Hospital, Karáchi, during the past year.

Emigrants.

One hundred and seventy-five artizans proceeding to the Uganda Railway, accompanied by 39 dependants, passed through the Port Health Camp, Karáchi, where they underwent the usual five days' segregation before embarking for Uganda *viâ* Bombay. On the day of sailing they were medically inspected and their clothing and bedding disinfected at the Port Health Camp, as required under section 65 (*1*) of the Indian Emigration Act XVII of 1908.

Red Sea Pilgrimage.

During the year under report no pilgrims bound for Mecca *viâ* Jeddah passed through Karáchi.

Pilgrims returning from Mecca.

The following table shows the number of pilgrims who returned to Karáchi from Jeddah *viâ* Aden, as well as other details.

Name of Steamers.	Date of Arrival.	Number of Crew.	Number of Pilgrims for Karáchi.	Number of Pilgrims for Bombay.	Number of deaths from Jeddah to Aden.	Number of deaths from Aden to Karáchi.
S.S. "Naderi" ...	6th Jan. 1911 ...	74	539	*Nil.*	5	5
S.S. "Majidi" ...	6th Jan. 1911 ...	79	486	253	3	7
S.S. "Najmi" ...	10th Jan. 1911 ...	98	651	206	9	20
S.S. "Majidi" ...	25th Dec. 1911 ...	86	714	*Nil.*	3	*Nil*
S.S. "Nawab" ...	25th Dec. 1911 ...	90	779	*Nil.*	6	14
S.S. "Shah Ameer" ...	26th Dec. 1911 ...	80	506	278	3	19
S.S. "Mahommadi" ...	26th Dec. 1911 ...	81	727	*Nil.*	12	8
	Total ...	588	4,402	737	41	73

Eight deaths occurred amongst pilgrims in Karáchi Harbour, while 114 deaths were reported as having occurred on board of pilgrim vessels during their voyage from Jeddah to Karáchi, the chief causes of death being attributed to old age, general debility, diarrhœa and privation. One pilgrim was found to be suffering from diarrhœa on arrival and was accordingly sent to the Civil Hospital, Karáchi, for treatment.

One case of small-pox occurred amongst the pilgrims of the S.S. "Nawab" and one case of measles amongst the pilgrims of the S.S. "Mahommadi," both of these patients being sent to the Epidemic Diseases Hospital, Karáchi, for treatment. Before being allowed to proceed to their destination on shore the pilgrims of the S.S. "Nawab" were medically inspected and their kit disinfected at the Port Health Camp, while 65 of the "Nawab's" pilgrims who were bound for Bombay continued their voyage to that port on board the S.S. "Shah Ameer" after being disinfected and medically inspected on shore. In all 4,402 pilgrims landed at Karáchi, while 737 pilgrims proceeded to Bombay on board the pilgrim vessels in which they had embarked from Jeddah to Bombay *viâ* Karáchi. There was a qualified doctor, a compounder, a female attendant, a hospital, and a steam disinfector in good working order on each of the abovementioned pilgrim steamers, and the arrangements were satisfactory.

Clayton Apparatus.

The Clayton apparatus was used on three occasions during the past year in order to fumigate the following pilgrim steamers and free them from rats before they sailed from

Karáchi to Jeddah to convey pilgrims thence to Bombay, *viz.*, (1) the S.S. "Majidi" on 22nd January 1911, (2) the S.S. "Majidi" on 22nd December 1911, and (3) the S.S. "Mahommadi" on 28th December 1911.

The Clayton apparatus worked satisfactorily, as many dead rats and cockroaches were found in the holds of the abovementioned vessels after the fumigation.

Sanitary state of the Harbour.

The sanitary state of the harbour was fairly satisfactory.

Port Health Camp.

In December 1911 the reclamation of an area of 8,624 square yards on the foreshore of Kiamari—which was approved by Government (*vide* Government Resolution, General Department, No. 5045, dated 21st August 1911) as the site for the Chemical Analyser's laboratory, and the new Disinfection Camp—was completed, and the work of building the laboratory was taken in hand. It is to be hoped that the new Port Health Office and Disinfection Camp will be built and ready for use in the course of the next few months, as the present office and camp are quite inadequate and unsuitable for the work of the Karáchi Port Health Department. Owing to the steady increase in the number of crews and passengers who are now disinfected a second (or supplementary) Equifex disinfection stove is urgently needed in order to carry out disinfection with efficiency and despatch.

Port Health Staff.

During the year under report the staff was as follows:—

Assistant Surgeon A. H. Macgregor, I.S.M.D.

Mrs. Lake.

Sub-Assistant Surgeon Baharsing Toursing.

As Assistant Port Health Officer, Assistant Surgeon Macgregor rendered valuable help in the general work of the Port Health Department.

Mrs. Lake, Lady Nurse, performed her duties in connection with the disinfection and medical inspection of female passengers and children carefully and satisfactorily.

Sub-Assistant Surgeon Baharsing Toursing carried out the duties entrusted to him in a most praiseworthy manner and to my entire satisfaction.

The clerk, Mr. Mahomed Jaffer Sheikh Ibrahim, performed his duties diligently, efficiently, and to my entire satisfaction.

The office peons and all the members of the disinfection and steam launch establishments worked satisfactorily.

H. C. VENIS,
Port Health Officer,
Karáchi.

APPENDIX II (*c*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF ADEN FOR THE YEAR 1911.

I.—General Remarks.

Shipping.—1,182 Steamers and square-rigged vessels were granted bills of health during the year.

Of the above number 757 under the British flag and 425 under Foreign flags.

Bills of health issued to the vessels from infected ports were annotated according to the circumstances of each case.

1,028 bills of health were issued to buggalows during the year.

The accompanying table A gives a list of vessels on board of which infectious diseases existed on arrival. In case of these vessels all possible sanitary precautions were taken on arrival at Aden to prevent the spread of disease.

Vessels and Native craft arriving from Berbera, the Somali Coast and from East Africa were personally inspected and certified free from small-pox, jigger and sleeping sickness.

The following cases of infectious diseases were landed from the shipping:—

Small-pox	...	...	6
German Measles	...	...	2
Measles	...	...	2
Bubonic Plague	...	...	2

II.—Pilgrim Traffic.

Fifty-nine pilgrim ships carrying pilgrims passed through this port during the year; all were medically inspected, but not granted pratique:—

Year.	Number of ships.	Number of pilgrims.	Number of deaths.	Cases of infectious disease on board.		Remarks.
				Small-pox.	Chicken-pox.	
1911	59	37,568	237	2	1	

III.—Table A.

List of vessels not carrying pilgrims on board of which infectious diseases existed on arrival at Aden:—

Number of ships.	Number of cases landed.	Number of cases died.	Number of cases recovered.	Average of cases per ship.	Average stay in hospital of each patient.		Remarks.
					Fatal.	Non-fatal.	
13	12	4	8	1	7·5	14·2	
					12		

Date.	Name of ship.	Nationality.	From	To	Number of cases.	Remarks.
12th January 1911	S.S. "Khosrou" ...	British ...	Jeddah ...	Bombay ...	1*	Chicken-pox.
22nd February 1911.	" "Salsette"	" ...	Bombay ...	Aden ...	1	Small-pox.
10th March 1911 ...	" "Majidi..." ...	" ...	Jeddah ...	Bombay ...	1*	Do.
16th April 1911 ...	H M.S. "Hyacinth"	" ...	Bombay ...	London ...	1	German Measles.
17th " ...	S.S. "Longsor" ..	French ...	Indo-China ...	Marseilles ...	2	Measles treated on board.
21st " ...	" "Ariosto" ...	British ...	Karáchi ...	Hull ...	1	Small-pox.
25th " ...	" "Mantua" ...	" ...	Bombay ...	London ...	3	2 Measles, 1 Bubonic Plague.
31st July 1911 ...	" "Rokeby" ...	" ...	" ...	" ...	1	Small-pox.
17th August 1911...	" "Persia" ...	" ...	" ...	" ...	1	German Measles.
6th October 1911 ...	" "Africa" ...	Austrian ...	" ...	Trieste ...	1	Bubonic Plague.
12th " ...	" "Naderi" ..	British ...	Jeddah ...	Busrah ...	1	Small-pox.
24th November 1911.	" "Goorkha" ...	" ...	London ...	Natal ...	1	Scarlatina convalescent isolated in ship's hospital.
19th December 1911.	" "Islami" ...	" ...	Jeddah ...	Bombay ...	1*	Small-pox.
				Total No. ...	16	

* Pilgrim ships.

Of the above number Small-pox 6, Measles 4, German Measles 2, Bubonic Plague 2, Chicken-pox 1, and Scarlatina 1.

IV. The following are the names and other information regarding pilgrim ships which passed through Aden during the year under report:—

No.	Date and months.	Names of Vessels.	Nationality.	From	To	Declared number of pilgrims.	Number of cases of infectious disease.	Deaths.
1	1st January 1911 ...	S. S. "Homayun"...	British ...	Jeddah ...	Bombay ...	823	.....	9
2	5th " ...	" "Shah Jehan".	" ...	" ...	" ...	1,389	.....	18
3	" " ...	" "Rahmani" .	" ...	" ...	" ...	744	.....	2
4	12th " ...	" "Khosrou" .	" ...	" ...	" ...	835	1 Chicken-pox	4
5	17th " ...	" "Hoseinie"...	" ...	" ...	Muscat and Bushire.	598	.....	2
6	13th " ...	" "Homayun" .	" ...	" ...	Bombay ...	815	.....	5
7	17th February 1911...	" "Khosrou" ...	" ...	" ...	" ...	871	.....	7
8	20th " ...	" "Islami" ...	" ...	" ...	" ...	804	.....	4
9	1st March 1911 ...	" "Budrie" ...	" ...	" ...	" ...	706	.....	23
10	2nd " ...	" "Sibirien" ...	" ...	" ...	" ...	673	.....	3
11	3rd " ...	" "Fakhri" ...	" ...	" ...	" ...	912	.....	6
12	5th " ...	" "Firoozi" ...	" ...	" ...	" ...	948	.....	3
13	9th " ...	" "Shah Jehan"	" ...	" ...	" ...	1,355	.....	6
14	10th " ...	" "Majidi" ...	" ...	" ...	" ...	711	1 Small-pox.	7
15	23rd " ...	" "Mahammadi."	" ...	" ...	" ...	191	.....	1
16	16th July 1911 ...	" "Medan" ...	Dutch ...	Java ...	Rotterdam...	1,128	.....	9
17	2nd August 1911 ...	" "Khosrou"...	British ...	Bombay ...	Jeddah ...	863	.....	7
18	20th " ...	" "Islami" ...	" ...	" ...	" ...	777	.....	8
19	30th " ...	" "Homayun" .	" ...	" ...	" ...	837	.....	2
20	8th September 1911...	" "Shah Jehan"	" ...	" ...	" ...	1,406	.....	5
21	9th " ...	" "Mohammadi."	" ...	" ...	" ...	654	.....	2
22	17th " ...	" "Khosrou"...	" ...	" ...	" ...	915	.....	4
23	22nd " ...	" "Naderi" ..	" ...	" ...	" ...	518	.....	...
24	27th " ...	" "Moshtari" .	" ...	Busrah ...	" ...	166	.....	...
25	29th " ...	" "Rahmani" .	" ...	Bombay ...	" ...	707	.....	4
26	1st October 1911 ...	" "Fakhri" ...	" ...	" ...	" ...	926	.....	...
27	" " ...	" "Islami' ...	" ...	" ...	" ...	772	.....	1
28	7th " ...	" "Homayun" .	" ...	" ...	" ...	846	.....	1
29	9th " ...	" "Naseri" ...	" ...	" ...	" ...	621	.....	...
30	12th " ...	" "Saifi" ...	" ...	" ...	" ...	491	.....	6
31	13th " ...	" "Mohammadi."	" ...	" ...	" ...	655	.....	1
32	27th " ...	" "Mansuri"...	" ...	" ...	" ...	693	.....	2
33	31st " ...	" "Khosrou"...	" ...	" ...	" ...	922	.....	..
34	2nd November 1911...	" "Majidi" ...	" ...	" ...	" ...	698	.....	3
35	" " ...	" "Shah Jehan"	" ...	" ...	" ...	1,398	.....	1
36	7th " ...	" "Rahmani" .	" ...	" ...	" ...	711	.....	...
37	" " ..	" "Islami" ...	" ...	" ...	" ...	780	.....	...
38	10th " ...	" "Fakhri" ...	" ...	" ...	" ...	1,004	.....	...
39	11th " ...	" "Sofala" ..	" ...	" ...	" ...	1,539	.....	...
40	" " ...	" "Homayun."	" ...	" ...	" ...	844	.....	2
41	13th " ...	" "Nawab" ...	" ...	" ...	" ...	871	.....	...
42	15th " ...	"Norkoowa*"	" ...	" ...	" ...	480	.....	3
43	" " ...	" "Shah Ameer."	" ...	" ...	" ...	834	.....	1
44	16th " ...	" "Saifi" ...	" ...	" ...	" ...	490	.....	...
45	17th " ...	" "Mohammadi."	" ...	" ...	" ...	653	.....	...
46	19th " ...	" "Lawoe" ...	" ...	" ...	" ...	608	.....	6
	21st " ...	" "Hoseinie"...	" ...	Aden ...	" ...	479	.....	...

* Pilgrims from the S. S. "Norkoowa" were transhipped to the S.S. "Hoseinie" at this port, as the former was put under repairs.

No.	Date and month.	Names of Vessels.	Naticnality.	From	To	Declared number of pilgrims.	Number of cases of infectious disease.	Deaths.
47	17th December 1911.	S. S. "Moshtari" ...	British ...	Jeddah ...	Busrah ...	446	.....	1
48	,, ,, ...	,, "Homayun" ...	,, ...	,, ...	Bombay ...	806	.....	3
49	,, ,, ...	,, "Majidi" ...	,, ...	,, ...	Karachi ...	689	.....	3
50	,, ,, ...	,, "Nawab" ...	,, ...	,, ...	,, ...	835	.....	5
51	,, ,, ...	,, "Rahmani" ...	,, ...	,, ...	Bombay ...	710	.....	2
52	18th ,, ...	,, "Budrie" ...	,, ...	,, ...	,, ...	705	.....	9
53	,, ,, ...	,, "Mohammadi".	,, ...	,, ...	Karachi ...	655	.....	9
54	,, ,, ...	,, "Shah Jehan"	,, ...	,, ...	,, ...	728	.....	4
55	19th ,, ...	,, "Naderi" ...	,, ...	,, ...	Persian Gulf Ports.	510	.....	5
56	,, ,, ...	,, "Islami" ..	,, ...	,, ...	Bombay ...	769	1 Small-pox.	4
57	,, ,, ...	,, "Sofala"† ...	,, ...	,, ...	,, ...	1,551	.....	16
58	29th ,, ...	,, "Alavi" ...	,, ...	,, ...	,, ...	774	.....	3
59	,, ,, ...	,, "Shah Jehan"	,, ...	,, ...	,, ...	1,245	.....	4

† 4 deaths from Cholera occurred on board this ship between Jeddah and Perim and 13 cases Diarrhœa.

V.—Prevailing Diseases.

Dysentery, Malarial Fever, diseases of respiratory system, ulcers, digestive system, and Small-pox.

Vaccination was offered to all arrivals as an alternative to quarantine, and residents of Aden, who had not been vaccinated, were persuaded to undergo operation.

VI. Table showing the number of cases treated at the Small-pox Hospital, Maalla:—

Year.	Remaining as per last return.	Admission.	Deaths.	Protected.	Unprotected.	Remarks.
1911 ...	11	72	15	42	30	Small-pox 59. Chicken-pox 6. Measles 3. Obsv. 4.

Source of admissions.						Europeans.
Shipping.	Steamer Point.	Maalla.	Crater.	Sheikh Othman.	Interior.	
6	26	19	19	1	1	5

VII. Statement showing the tubes received, their cost and the vaccination operations performed during the year:—

Number of tubes received.		Cost.		Remarks.
English.	Bombay.	Lanoline.	Glycerinated vaccine.	
Nil.	4,750	Nil.	Rs. a. p. 1,187 8 0	

Total number of operations performed.	Result.			Remarks.
	Sucessful.	Failed.	Unknown.	
93,37	554	.....	8,783	

VIII.—Establishment.

Lieut.-Colonel S. E. Prall, I. M. S., Health Officer of the Port, Aden.

From 1st January to 20th July 1911, and 23rd October to 31st December 1911. The intervening period Lieut.-Colonel S. E. Prall, I. M. S., was on privilege leave and leave without pay, and Major A. F. W. King, I. M. S., acted for him.

IX.—Office Establishment.

Mr. A. E. Almeida, clerk, 1st January to 31st December 1911.

Peon Lakshman Krishna, 1st January to 31st December 1911.

X.—Launch Establishment.

1. Driver Awad Saeed, 1st January to 30th November 1911, and resigned from 1st December 1911. Sheikh Ali was taken up in his place from 1st December 1911 forenoon.

2. Succani Ahmed Suleman, 1st January to 31st December 1911.

3. Stoker Husein Noman, 1st January to 31st October 1911, and from 1st November 1911 forenoon on leave without pay, and Mahomed Ali acting for him.

4. Lascar Md. Magon, 1st January to 31st December 1911.

S. E. PRALL,
Lieut.-Colonel, I. M. S.,
Health Officer of the Port, Aden.

Aden, 24th February 1912.

APPENDIX III.

The following table shows when the drainage systems and water-works were completed in the towns mentioned therein, with the average annual death-rate for the five-year period preceding the introduction, and also the ratio for the five-year period ending with the year under report, exclusive of recorded plague mortality.

The rural death-rates for each district are added for comparison:—

District.	Táluka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1911 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in rural circles for the year 1911.	Plague mortality in rural circles for the year 1911.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay ...	*a* 1879	*b* 1892	32·23	27·98	...	...
West Khándesh ...	Dhulia ...	Dhulia ...	...	1896	20·13	32·50	22·87	·88
Ahmednagar ...	Ahmednagar ...	Ahmednagar ...	...	1897	28·16	55·65	22·14	1·25
Surat ...	Olpád ...	Surat ...	...	1898	23·41	39·77	25·62	·00
Ahmedabad ...	Daskroi ...	Ahmedabad ...	*c* 1893	1891	43·36	45·21	24·81	·66
Karáchi ...	Karáchi ...	Karáchi ...	*c* 1895	1894	23·03	35·15	4·70	·11
Sukkur ...	Sukkur ...	Sukkur ...	...	1895	26·49	28·70	17·76	...
Thána ...	Sálsette ...	Bándra ...	...	1896	23·45	23·01	29·55	3·44
Kolába ...	Panvel ...	Panvel ...	...	1895	28·67	19·50	28·84	3·21
Dhárwár ...	Hubli ...	Hubli ...	...	1894	28·34	25·70	76·57	50·41
Ahmedabad ...	Viramgám ...	Viramgám ...	*d* 1893	...	34·47	69·28	25·07	·12
East Khándesh ...	Jalgaon ...	Jalgaon ...	...	1909	26·81	31·56	24·96	·41
Sholápur ...	Pandharpur ...	Pandharpur ...	...	1911	45·71	49·98	42·16	15·32

a Drainage works commenced in 1879 are still in progress.

b Tánsa water-works completed in 1892. Besides these there are Vehár and Tulsi Water Works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1911.*

1	2	3			4			5			6	7	8	9		
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	East Khándesh ..	521,546	512,618	1,034,214	26,869	25,406	52,275	25·98	24·56	50·54	105·76	21·50	..	26·38	24·93	51·36
2	West Khándesh ...	293,300	287,380	580,680	15,587	14,781	30,363	26·34	25·45	52·29	105·45	28·25	..	29·03	27·93	56·97
3	Násik	455,045	448,599	903,644	23,558	22,347	45,905	26·07	24·72	50·79	105·42	18·38	..	21·78	20·64	42·42
4	Thána	466,673	424,235	890,908	14,521	13,655	28,176	16·48	15·59	31·98	106·34	5·11	..	18·35	17·44	35·79
5	Kolába	295,085	299,972	594,057	11,186	10,508	21,694	18·83	17·69	36·52	106·45	7·08	..	18·43	17·43	35·86
6	City of Bombay ..	629,354	333,509	963,363	10,718	10,334	21,052	11·12	10·73	21·85	103·71	...	14·63	11·19	10·52	21·71
	Central Registration District.															
7	Ahmednagar	475,163	468,825	943,991	21,974	20,825	42,799	23·28	22·06	45·34	105·52	23·03	..	23·26	22·08	45·34
8	Poona	538,238	526,568	1,064,806	19,909	18,629	38,538	18·69	17·50	36·19	106·87	12·71	..	18·39	17·12	35·51
9	Sholápur	391,311	376,706	768,017	17,320	16,482	33,802	22·55	21·46	44·01	105·08	9·31	..	20·29	19·21	39·50
10	Sátára	538,841	541,957	1,080,798	21,135	20,253	41,388	19·55	18·74	38·29	104·35	16·29	..	16·86	15·86	32·72
11	Ratnágiri	553,368	650,234	1,203,602	20,031	18,757	38,788	16·64	15·58	32·22	106·79	10·72	..	16·50	15·62	32·12
	Southern Registration District.															
12	Belgaum	478,458	463,490	941,948	19,608	18,627	38,235	20·81	19·78	40·59	105·27	...	5·50	18·61	17·96	36·57
13	Dhárwár	519,995	505,091	1,025,086	19,573	18,859	38,432	19·09	18·40	37·49	103·64	..	30·58	18·47	17·86	36·33
14	Bijápur	433,966	429,061	862,927	17,687	17,325	35,012	20·50	20·08	40·57	102·09	2·35	..	18·52	17·82	36·34
15	Kánara	220,065	210,369	430,434	7,071	6,611	13,682	16·43	15·36	31·79	106·96	...	·33	16·18	15·55	31·73
	Gujarát Registration District.															
16	Surat	326,839	327,135	653,974	12,295	11,525	23,820	18·80	17·62	36·42	106·68	8·54	..	19·10	18·09	37·19
17	Broach	158,219	148,448	306,667	7,086	6,539	13,625	23·11	21·32	44·43	108·37	16·65	..	23·61	22·55	46·16
18	Kaira	870,174	321,468	691,642	16,027	14,356	30,383	23·17	20·76	43·93	111·64	14·94	..	21·19	19·14	40·33
19	Panch Mahális ..	165,902	156,751	322,653	6,859	6,602	13,461	21·26	20·46	41·72	103·89	23·76	..	24·20	23·42	47·62
20	Ahmedabad	432,124	395,213	827,337	16,774	15,033	31,807	20·27	18·17	38·44	111·58	9·07	..	18·58	16·51	34·59
	Sind Registration District.															
21	Karáchi	290,390	225,943	516,333	6,573	5,761	12,334	12·73	11·16	23·89	114·08	2·00	..	13·35	11·60	24·95
22	Hyderabad	571,180	465,035	1,036,215	9,418	7,191	16,609	9·09	6·94	16·03	130·97	1·62	..	9·27	6·66	15·93
23	Thar and Párkar ..	255,339	201,399	456,738	5,142	4,091	9,233	11·26	8·96	20·22	125·69	2·14	..	12·02	9·11	21·14
24	Lárkhána	359,207	301,621	660,828	8,513	6,722	15,235	12·88	10·17	23·05	126·64	6·94	..	11·66	9·08	20·74
25	Sukkur	312,732	260,803	573,535	7,343	5,977	13,320	12·80	10·42	23·22	122·85	6·81	..	13·18	10·53	23·71
26	Upper Sind Frontier..	145,541	117,445	262,986	2,903	2,214	5,117	11·04	8·42	19·46	131·12	8·03	..	10·39	7·70	18·09
	Total for the Presidency ..	10,189,455	9,398,928	19,587,383	365,680	339,410	705,090	18·67	17·33	36·00	107·74	7·65	..	18·21	16·89	35·10

ANNUAL FORM NO. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1911.*

1	2	3	4	5			6		7			8
Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS 1911).			BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	East Khándesh	4,550	227	521,546	512,668	1,034,214	52,276	50·54	15,571	14,465	30,036	107·64
2	West Khándesh	5,439	106	293,300	287,380	580,680	30,368	52·29	7,371	6,589	13,960	111·87
3	Násik	5,869	154	455,045	448,599	903,644	45,905	50·79	14,924	14,372	29,296	103·84
4	Thána	3,576	246	456,673	424,235	880,908	23,176	31·98	12,414	11,263	24,677	110 21
5	Kolába	2,169	274	295,085	298,972	594,057	21,694	36·52	9,043	8,447	17,490	107·05
6	City of Bombay	22·5	41,483	629,854	333,509	963,363	21,052	21·85	19,288	15,277	34,565	126·26
	Central Registration District.											
7	Ahmednagar...	6,613	142	475,163	468,828	943,991	42,799	45·34	10,925	10,132	21,057	107·83
8	Poona	5,366	198	538,238	526,568	1,064,806	33,538	35·19	13,041	11,960	25,001	109·04
9	Sholápur	4,556	169	391,311	376,706	768,017	38,802	44 01	13,5·5	13,143	26,648	102·75
10	Sátára	4,818	224	538,841	541,957	1,080,798	41,388	38·29	11,903	11,873	23,776	100 25
11	Ratnágiri	3,989	302	553,368	650,234	1,203,602	38,488	32·22	13,080	12,801	25,881	102·18
	Southern Registration District.											
12	Belgaum	4,613	204	478,458	463,490	941,948	38,235	40·59	16,488	16,573	33,061	99·49
13	Dhárwár	4,604	223	519,995	505,091	1,025,086	38,432	37·49	34 949	34,828	69,777	100·35
14	Bijápur	5,707	151	433,866	429,061	862,927	35,012	40·57	16,589	1 ,219	32,808	102·28
15	Kánara	3,946	109	220,065	210,369	430,434	13,682	31·79	7,167	6,658	13,825	107·64
	Gujarát Registration District.											
16	Surat	1,651	396	326,839	327,135	653,974	23,820	36·42	9,394	8,837	18,231	106·30
17	Broach	1,468	209	158,219	148,448	306,667	18,625	44 43	4,434	4,037	8,521	108·49
18	Kaira	1,596	433	370,174	321,468	691,642	30,383	43·93	10,330	9,724	20,054	106·23
19	Panch Mahális	1,606	201	165,902	156,751	322,653	13,4·1	41·72	3,0 3	2,793	5,796	107·51
20	Ahmedabad	3,824	216	432,124	395,213	827,337	31,807	38·44	12,493	11,819	24,302	105·62
	Sind Registration District.											
21	Karáchi	11,782	44	290,390	225,943	516,333	12,334	23·89	6,266	5,036	11,302	124·42
22	Hyderabad	8,034	129	571,180	465,035	1,036,215	16,609	16·03	8,347	6,681	14,928	126·83
23	Thar and Párkar	13,583	33	255,339	201,399	456,738	9,233	20·22	4,549	3,710	8,259	122·61
24	Lárkhana	5,058	131	359,207	301,621	660,828	15,235	23·05	5,788	4,858	10,646	119·14
25	Sukkur	5,585	103	312,732	260,803	573,535	13,320	23·22	5,146	4,263	9,409	120·71
26	Upper Sind Frontier ...	2,644	99	145,541	117,446	262,986	5,117	19·46	1,658	1,348	3,006	123·00
	Total for the Presidency..	122,978	159	10,188,455	9,398,928	19,587,383	705,090	36·00	287,656	267,656	555,312	107·47

1	2	9										10		
Number.	Districts.	DEATHS PER 1,000 OF POPULATION FROM										MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	All causes.				
										Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.														
1	East Khándesh	·03	·03	3·94	9·45	1·58	3·22	·21	10·58	29·86	28·22	29·04	36·95	35·78	36·37
2	West Khándesh	·06	·01	·42	11·67	·39	1·99	·28	9·21	25·13	22·92	24·04	36·65	35·06	35·86
3	Násik	·06	·18	6·44	10·90	·99	2·89	·28	10·67	32·79	32·05	32·41	33·69	31·33	32·52
4	Thána	·20	·19	1·42	16·85	·82	·87	·50	6·02	27·18	26·55	26·87	30·75	30·77	30·76
5	Kolába	·52	·49	1·66	16·54	1·34	·71	·40	7·78	30·64	28·25	29·44	30·75	29·44	30·10
6	City of Bombay	·13	·46	4·15	3·21	3·13	11·08	·71	13·01	30·62	45·81	35·88	39 75	51·20	44·06
	Central Registration District.														
7	Ahmednagar	·17	·05	2·04	7·49	2·76	2·86	·26	6·68	22·99	21·61	22·31	32·35	29·30	30·82
8	Poona	·13	·17	1·48	10·93	3·34	2·53	·51	4·39	24·23	22·71	23·48	35·46	33·09	34·29
9	Sholápur	1·22	·10	9·16	11·75	4·97	1·55	·39	5·56	34·51	34·89	34·70	31·62	29·99	30·81
10	Sátára	·00	·05	3·95	8·71	2·58	·81	·41	5·49	22·09	21·91	22·00	32·37	31·63	32·25
11	Ratnágiri	·03	·25	·33	13·15	2·52	1·72	·37	3·13	25·64	19·68	21·50	23·03	19·80	21·32
	Southern Registration District.														
12	Belgaum	·17	·01	13·54	5·00	2·45	1·96	·40	11·56	34·46	35·80	35·09	30·47	30·32	30·40
13	Dhárwár	1·61	·05	37·58	9·49	1·21	2·50	·34	15·29	67·21	63·95	65·07	25·56	25·12	25·47
14	Bijápur	2·27	·10	11·76	9·54	2·14	2·08	·31	9·82	38·23	37·89	38·02	29·32	28·55	28·94
15	Kánara	·01	·04	·48	14·54	2·03	·96	·43	12·73	32·57	31·65	32·12	32·34	31·89	32·13
	Gujarát Registration District.														
16	Surat	·00	·36	2·55	14·42	·54	6·40	·28	3·24	28·74	27·01	27·88	29·54	28·47	29·01
17	Broach	·00	·06	·19	16·49	·61	4·77	·52	5·14	28·02	27·53	27·78	36·40	37·43	36·83
18	Kaira	·00	·25	2·31	9·77	1·11	3·03	·57	6·95	27·11	3·25	28·99	35·64	33·35	36·93
19	Panch Mahális	...	·02	1·21	12·93	·16	·49	·35	2·84	18·10	17·32	17·96	23·42	24·32	24·07
20	Ahmedabad	...	·94	·40	19·20	·51	4·40	·40	3·52	28·89	29·91	29·37	38·13	39·29	39·00
	Sind Registration District.														
21	Karáchi	·02	1·28	6·04	7·83	·27	1·12	·32	5·01	21·58	22·21	21·89	23·09	23·75	23·39
22	Hyderabad	...	·27	·02	12·50	·22	·54	·31	·54	14·61	14·15	14·41	18·21	18·25	18·23
23	Thar and Párkar	...	·24	...	17·22	·03	·12	·27	·20	17·32	18·42	18·03	16·26	19·04	19·16
24	Lárkhána	...	·07	·00	15·04	·02	·02	·41	·55	16·11	16·11	16·11	23·85	23·68	23·91
25	Sukkur	...	·07	·01	14·03	·07	·17	·28	1·77	16·46	16·35	16·41	26·75	28·32	27·47
26	Upper Sind Frontier ...	...	·25	...	10·61	·02	·01	·27	·27	11·39	11·48	11·43	17·49	19·03	18·17
	Total for the Presidency...	·30	·24	5·13	11·38	1·01	2·63	·38	6·68	28·23	28·48	28·35	30·80	30·29	30·54

ANNUAL FORM NO. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the month of the year 1911.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	East Khándesh	2,566	2,717	2,631	2,559	2,644	1,666	2,051	3,127	3,049	2,498	2,155	2,373	30,036	1
2	West Khándesh	1,087	1,084	1,152	1,252	1,176	798	1,010	1,313	1,102	1,228	1,354	1,404	13,960	2
3	Násik	2,598	2,143	1,898	1,946	1,895	1,568	1,974	2,357	2,846	3,091	3,385	3,599	29,296	3
4	Thána	2,578	2,666	2,416	1,991	1,671	1,419	1,421	1,727	1,695	1,914	2,252	1,897	23,877	4
5	Kolába	1,689	2,010	2,350	1,787	1,333	1,122	1,147	1,273	1,125	1,045	1,217	1,392	17,490	5
6	City of Bombay	3,015	3,329	3,926	4,051	3,263	2,076	2,373	2,369	2,337	2,469	2,370	2,967	34,565	6
	Central Registration District.														
7	Ahmednagar	1,449	1,318	1,330	1,303	1,459	1,504	1,798	2,046	2,687	2,438	1,895	1,839	21,057	7
8	Poona	1,797	1,680	1,802	2,278	1,983	1,648	1,942	1,958	2,445	2,200	2,390	2,875	25,001	8
9	Sholápur	1,986	2,070	1,740	1,281	1,305	1,201	1,932	2,957	4,133	3,201	2,657	2,185	26,648	9
10	Sátára	1,997	1,604	1,905	1,678	1,578	1,540	1,816	2,134	2,347	2,314	2,489	2,374	23,776	10
11	Ratnágiri	2,414	2,694	2,621	2,330	1,951	1,841	1,938	2,139	2,055	1,943	1,871	2,084	25,831	11
	Southern Registration District.														
12	Belgaum	2,303	2,129	1,978	1,771	1,719	1,769	2,418	3,316	4,643	4,802	3,581	2,662	33,061	12
13	Dhárwár	3,761	3,561	3,201	2,598	2,610	2,662	4,651	8,191	13,563	13,309	6,927	4,740	69,777	13
14	Bijápur	1,560	1,430	1,589	1,752	1,633	2,126	2,418	2,683	2,824	5,011	5,174	4,558	32,808	14
15	Kánara	1,503	1,518	1,399	1,032	940	978	1,100	1,109	1,037	1,006	1,056	1,147	13,825	15
	Gujarát Registration District.														
16	Surat	1,573	1,843	2,055	1,738	1,519	1,190	1,355	1,435	1,378	1,233	1,373	1,489	18,231	16
17	Broach	803	802	873	808	675	570	675	681	642	625	664	703	8,521	17
18	Kaira	1,638	1,773	2,343	2,095	1,833	1,594	1,956	1,630	1,446	1,210	1,174	1,362	20,054	18
19	Panch Mahális	680	705	695	496	503	390	387	335	325	348	420	512	5,796	19
20	Ahmedabad...	2,291	2,544	2,973	2,504	2,088	1,585	1,768	1,597	1,652	1,716	1,752	1,832	24,302	20
	Sind Registration District.														
21	Karáchi	946	1,022	1,265	2,010	1,639	679	605	411	553	642	702	778	11,302	21
22	Hyderabad	2,087	1,834	1,565	1,312	1,259	1,083	885	808	795	943	1,062	1,314	14,928	22
23	Thar and Párkar	905	1,146	997	847	719	504	429	315	344	498	602	963	8,259	23
24	Lárkhána	1,383	1,302	1,005	825	704	633	543	600	691	854	1,074	1,032	10,646	24
25	Sukkur	1,279	1,106	927	708	770	674	586	515	536	700	795	813	9,409	25
26	Upper Sind Frontier ...	335	363	231	303	329	227	213	196	188	208	222	241	3,006	26
	Total for the Presidency ...	46,223	46,433	46,945	43,245	39,133	32,985	39,391	47,222	56,441	57,496	50,613	49,185	555,312	
	Ratio of deaths per 1,000 in each month... ...	2·38	2·37	2·40	2·21	2·00	1·68	2·01	2·41	2·88	2·94	2·58	2·51	28·35	

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	East Khándesh	4,942	4,076	2,964	2,967	654	728	502	634
2	West Khándesh	2,651	2,161	1,501	1,450	332	325	149	200
3	Násik	4,075	3,490	2,748	2,766	906	1,008	617	741
4	Thána	2,400	2,091	2,015	1,992	717	779	423	419
5	Kolába	2,071	1,723	1,312	1,365	457	506	301	316
6	City of Bombay	4,159	3,894	2,063	2,135	558	666	719	660
	Central Registration District.								
7	Ahmednagar	3,474	2,878	2,286	2,148	439	480	250	327
8	Poona	3,622	2,901	2,653	2,336	549	599	387	463
9	Sholápur	2,891	2,398	2,521	2,395	737	778	654	743
10	Sátára	2,879	2,394	2,102	2,139	695	738	529	588
11	Ratnágiri	2,176	1,907	2,004	1,988	624	656	358	349
	Southern Registration District.								
12	Belgaum	2,502	2,083	2,455	2,584	1,468	1,625	1,254	1,413
13	Dhárwár	3,537	2,879	4,029	4,249	3,760	4,202	3,482	3,866
14	Bijápur	2,583	2,153	2,650	2,653	1,283	1,395	1,016	1,125
15	Kánara	1,665	1,388	591	640	286	295	186	186
	Gujarát Registration District.								
16	Surat	2,130	1,662	1,716	1,624	533	562	304	369
17	Broach	1,373	1,199	1,003	906	142	125	84	78
18	Kaira	2,680	2,607	2,705	2,403	357	338	222	207
19	Panch Mahals	776	734	585	510	138	143	96	89
20	Ahmedabad	3,757	3,469	2,618	2,499	402	347	224	250
	Sind Registration District.								
21	Karáchi	1,528	1,266	803	918	426	379	309	270
22	Hyderabad	1,447	1,291	888	773	529	441	400	333
23	Thar and Párkar	802	724	532	483	212	255	196	141
24	Lárkhána	1,172	1,000	659	591	361	320	203	170
25	Sukkur	1,305	1,097	605	497	277	200	170	128
26	Upper Sind Frontier ...	360	285	210	210	134	100	82	44
	Total for the Presidency ...	62,957	53,970	46,218	45,221	16,926	17,990	13,117	14,109
	Population according to Census of 1911	333,992	333,705	1,033,360	1,066,128	1,286,872	1,204,044	1,129,222	893,170
	Ratios per 1,000 living ...	188·50	161·73	44·73	42·41	13·15	14·94	11·61	15·80

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1911.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
341	532	1,039	1,309	1,273	1,023	1,084	746	992	726	1,780	1,704	1
139	181	376	475	488	433	510	289	425	272	800	803	2
463	628	1,162	1,389	1,355	1,207	1,200	808	930	747	1,468	1,588	3
378	422	1,121	1,307	1,512	1,166	1,272	819	1,145	831	1,431	1,438	4
286	327	675	914	878	759	910	540	883	654	1,270	1,343	5
1,548	1,274	3,632	2,455	2,404	1,264	1,600	736	1,296	846	1,309	1,347	6
293	407	668	836	671	612	706	496	887	686	1,251	1,262	7
393	597	1,034	1,167	1,007	819	933	653	886	725	1,577	1,700	8
672	748	1,111	1,292	1,114	1,177	1,106	923	998	842	1,701	1,847	9
417	539	939	1,100	917	897	895	759	899	794	1,631	1,925	10
466	495	1,059	1,151	1,018	948	1,098	844	1,260	983	3,017	3,480	11
783	850	1,661	1,743	1,530	1,502	1,467	1,275	1,334	1,146	2,034	2,352	12
2,065	1,957	4,407	4,923	3,671	3,618	3,533	2,864	3,019	2,569	3,455	3,701	13
645	731	1,634	1,678	1,485	1,500	1,565	1,382	1,535	1,222	2,193	2,380	14
179	274	680	832	893	712	904	625	815	598	1,018	1,108	15
311	280	709	918	814	821	781	557	758	560	1,338	1,284	16
93	110	306	338	308	331	349	248	349	241	427	511	17
297	261	862	855	872	855	793	640	687	637	855	921	18
99	104	246	286	271	261	281	195	253	187	258	284	19
368	410	1,309	1,262	1,045	973	936	765	918	777	906	1,067	20
301	280	888	683	702	424	492	252	341	167	476	397	21
400	428	1,016	996	1,074	737	1,003	557	680	370	910	655	22
262	197	610	550	543	433	498	312	395	234	499	381	23
233	217	600	732	726	597	645	402	474	265	715	564	24
180	202	460	588	496	436	532	336	445	256	676	523	25
74	50	135	185	167	143	148	99	117	67	231	165	26
11,686	12,501	28,339	29,964	27,234	23,647	25,241	18,122	22,712	17,402	33,226	34,730	
352,854	752,848	1,903,139	1,801,211	1,562,195	1,370,275	1,064,455	949,249	611,654	564,582	436,814	476,708	
13·70	16·60	14·89	16·63	17·43	17·26	23·71	19·09	37·13	30·82	76·06	72·85	

ANNUAL FORM No. V.—DEATHS *registered according to* CLASSES

1	2	3						
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.						
		Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	East Khándesh	99,521	902,131	9,361	748	371	22,082	1,034,214
2	West Khándesh	31,323	474,200	3,796	586	233	70,542	580,680
3	Násik	47,705	843,705	7,902	1,867	840	1,625	903,644
4	Thána	41,979	786,925	2,985	43,341	5,105	573	880,908
5	Kolába	28,876	560,266	1,411	1,149	303	2,052	594,057
6	City of Bombay	179,346	664,042	20,460	41,273	50,931	7,311	963,363
	Central Registration District.							
7	Ahmednagar	47,959	855,676	15,284	23,622	222	1,228	943,991
8	Poona	48,936	991,738	11,731	8,280	2,695	1,476	1,064,806
9	Sholápur	55,377	703,215	7,643	1,412	334	36	768,017
10	Sátára	36,688	1,028,176	14,883	815	209	27	1,080,798
11	Ratnágiri	85,303	1,110,594	1,913	5,678	46	68	1,203,602
	Southern Registration District.							
12	Belgaum	77,075	817,797	41,533	5,313	159	71	941,948
13	Dhárwár	136,943	872,885	10,413	4,526	218	101	1,025,086
14	Bijápur	101,069	757,542	3,235	1,052	28	1	862,927
15	Kánara	28,731	383,624	1,251	16,729	14	85	430,434
	Gujarát Registration District.							
16	Surat	55,394	571,834	9,821	1,050	11,783	4,092	653,974
17	Broach	67,752	192,964	3,053	1,052	2,770	39,076	306,667
18	Kaira	63,280	598,165	6,609	23,490	81	17	691,642
19	Panch Mahals	22,273	274,339	1,542	1,810	204	22,485	322,653
20	Ahmedabad	92,018	693,209	35,899	3,584	1,639	988	827,337
	Sind Registration District.							
21	Karáchi	396,334	111,748	650	3,625	2,202	1,774	516,333
22	Hyderabad	781,219	246,008	171	201	96	8,520	1,036,215
23	Thar and Párkar	254,218	196,793	524	47	6	5,150	456,738
24	Lárkhána	557,517	101,687	1	21	6	1,596	660,828
25	Sukkur	414,671	155,156	3	207	96	3,402	573,535
26	Upper Sind Frontier	235,970	26,495	...	10	5	506	262,986
	Total for the Presidency ...	3,987,477	14,920,914	212,074	191,438	80,596	194,884	19,587,383

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

in the BOMBAY PRESIDENCY *during the year 1911.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
2,643	27,313	65	9	4	2	30,036	26·56	30·28	6·94	12·03	10·78	·09	29·04
633	13,308	13	5	1	...	13,960	20·24	28·06	3·43	8.53	4·29	...	24·04
2,046	27,164	26	46	12	2	29,296	42·88	32·19	3·29	24·63	14·28	1·23	32·41
1,288	21,092	22	1,185	83	7	23,677	30·68	26·80	7·37	27·34	15·67	12·22	26·87
863	16,546	3	26	1	51	17,490	29·89	29·53	2·12	22·62	3·30	24·85	29·44
8,313	21,988	1,438	1,426	1,242	208	34,565	46·35	33·04	70·28	34·55	24·39	28·45	35·88
1,052	19,589	41	68	3	304	21,057	21·94	22·89	2·68	2·88	13·51	247·56	22·31
1,306	23,345	144	74	30	102	25,001	26·69	23·54	12·28	8·99	11·13	69·11	23·48
2,086	24,407	141	10	2	2	26,648	37·67	34·71	18·45	7·08	5·99	55·56	34·70
902	22,589	247	8	...	30	23,776	24·59	21·97	16·53	9·81	...	...	22·00
1,950	23,801	13	116	...	1	25,881	22·86	21·43	6·80	20·43	...	14·71	21·50
2,691	29,263	995	110	2	...	33,061	34·91	35·78	23·96	20·70	12·58	...	35·09
8,384	60,679	625	88	1	...	69,777	61·22	69·51	60·02	19·44	4·59	...	68·07
3,809	28,919	62	18	...	...	32,808	37·69	38·17	19·17	17·11	...	...	38·02
731	12,590	41	463	...	...	13,825	25·44	33·34	32·77	27·68	...	...	32·12
1,299	14,776	195	18	259	1,684	18,231	23·45	25·84	19·86	17·46	21·96	411·53	27·88
1,593	5,735	36	5	62	1,090	8,521	23·51	29·72	11·79	4·75	22·38	27·89	27·78
1,899	17,853	131	169	2	...	20,054	30·01	29·85	19·82	7·19	24·69	...	28·99
511	3,987	17	9	1	1,271	5,796	22·94	14·53	11·02	4·97	4·90	56·53	17·96
2,470	20,886	875	31	16	24	24,302	26·84	30·13	24·37	8·65	9·76	24·29	29·37
6,786	4,366	...	89	42	19	11,302	17·12	39·07	...	24·55	19·07	10·71	21·89
10,046	4,878	3	...	1	...	14,928	12·86	19·83	17·54	...	10·42	...	14·41
3,990	4,240	25	3	...	1	8,259	15·70	21·55	47·72	63·83	....	·19	18·08
8,841	1,801	...	1	...	3	10,646	15·86	17·71	...	47·62	...	1·88	16·11
5,859	3,530	1	...	3	16	9,409	14·13	22·75	333·33	...	31·25	4·70	16·41
2,542	464	...	...	...	...	3,006	10·77	17·51	...	...	...	...	11·43
84,533	455,059	5,159	3,977	1,767	4,817	555,312	21·20	30·50	24·33	20·77	21·92	24·72	28·35

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	East Khándesh ...	986,978	37	29	4,035	9,501	1,531	3,115	3	3	174
2	West Khándesh ...	538,084	27	2	240	6,557	172	975	7	4	94
3	Násik	832,916	56	53	4,332	9,321	729	2,385	5	11	160
4	Thána	829,832	182	163	1,018	14,519	607	656	19	15	218
5	Kolába	575,791	309	259	786	9,672	774	389	6	8	146
	Central Registration District.										
6	Ahmednagar ...	888,096	162	45	1,683	6,717	2,498	2,387	4	4	171
7	Poona	889,808	136	144	928	9,907	2,818	1,995	7	7	435
8	Sholápur	660,338	699	49	3,933	7,443	2,934	836	6	1	193
9	Sátára	1,045,572	1	45	3,737	9,148	2,589	814	11	16	319
10	Ratnágiri	1,170,486	35	297	265	15,492	2,968	1,986	4	5	193
	Southern Registration District.										
11	Belgaum	880,022	163	4	11,796	4,561	2,167	1,750	12	3	303
12	Dhárwár	892,969	1,583	3	35,371	9,311	1,094	1,931	21	17	236
13	Bijápur	818,064	1,852	88	8,816	8,117	1,766	1,635	17	11	194
14	Kánara	402,046	2	298	207	6,054	819	378	4	7	149
	Gujarát Registration District.										
15	Surat	523,269	2	16	1,483	8,402	193	3,061	6	13	109
16	Broach	254,323	1	18	56	4,718	126	959	2	3	75
17	Kaira	632,214	1	65	1,390	6,197	631	4,845	16	14	215
18	Panch Maháls ...	291,248	...	6	193	3,851	28	113	1	2	58
19	Ahmedabad ...	573,612	...	88	274	11,285	129	884	6	12	128
	Sind Registration District.										
20	Karáchi	369,818	...	644	32	3,248	40	69	7	...	58
21	Hyderabad... ...	961,192	...	227	20	11,855	42	94	6	3	175
22	Thar and Párkar ...	452,792	...	107	...	7,726	13	47	7	5	57
23	Lárkhána	644,762	...	45	1	9,679	9	11	9	7	180
24	Sukkur	484,675	...	29	...	6,503	17	37	2	6	98
25	Upper Sind Frontier.	251,646	...	65	...	2,622	3	3	7	10	39
	Total of Districts ...	16,850,573	5,248	2,789	80,596	202,406	24,697	31,355	195	187	4,177
	B.—TOWNS.										
	East Khándesh District.										
1	Jalgaon	17,195	...	7	37	69	50	73	1	...	7
2	Chopda	17,008	...	...	1	80	10	68	...	...	3
3	Nasirabad	13,033	...	...	...	130	21	77	...	...	6
	West Khándesh District.										
4	Dhulia	30,757	...	...	8	113	27	157	1	1	7
5	Nandurbár... ...	11,839	11	...	...	107	29	25	1	...	4

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1911.*

RIES.		11	12	13										14
				RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
21	201	10,476	28,925	·03	·03	4·09	9·63	1·55	3·16	·20	10·61	29·30	36·76	1
43	148	4,872	12,993	·05	·01	·44	12·18	·32	1·81	·27	9·06	24·14		2
55	231	8,864	25,971	·07	·06	5·20	11·19	·87	2·86	·28	10·64	31·18	35·65	3
166	418	4,561	22,124	·22	·19	1·23	17·50	·73	·79	·50	5·50	26·66	30·82	4
68	228	4,440	16,857	·54	·45	1·36	16·80	1·34	·67	·40	7·71	29·27	30·32	5
53	232	6,165	19,889	·18	·05	1·89	7·56	2·81	2·69	·26	6·94	22·38	30·71	6
61	510	3,243	19,681	·15	·16	1·04	11·13	3·17	2·24	·57	3·64	22·10	31·78	7
42	242	3,242	19,378	1·06	·07	5·96	11·27	4·44	1·27	·37	4·91	29·35	28·55	8
74	420	5,775	22,529	·00	·04	3·57	8·75	2·48	·79	·40	5·52	21·55	32·32	9
237	439	3,636	25,118	·03	·25	·23	13·23	2·54	1·70	·37	3·11	21·46	21·31	10
36	354	10,173	30,968	·19	·00	13·40	5·18	2·46	1·99	·40	11·56	35·19	30·18	11
20	294	13,400	62,987	1·77	·00	39·61	10·43	1·23	2·16	·33	15·01	70·54	24·52	12
25	247	7,898	30,419	2·26	·11	10·77	9·92	2·16	2·00	·30	9·65	37·18	32·87	13
15	175	5,206	13,139	·00	·74	·51	15·06	2·04	·94	·44	12·95	32·68	32·70	14
33	161	1,313	14,631	·00	·03	2·83	16·06	·37	5·85	·31	2·51	27·96	30·07	15
34	114	1,081	7,073	·00	·07	·22	18·56	·49	3·77	·45	4·25	27·81	37·93	16
105	350	4,223	17,702	·00	·10	2·20	9·80	1·00	7·67	·55	6·68	28·00	36·72	17
42	103	626	4,920	...	·02	·66	13·22	·10	·39	·35	2·15	16·89	24·11	18
102	248	992	13,900	...	·15	·48	19·67	·23	1·54	·43	1·73	24·23	34·05	19
52	117	378	4,528	...	1·74	·09	8·78	·11	·19	·32	1·02	12·24	14·07	20
117	301	188	12,727	...	·24	·02	12·33	·04	·10	·31	·20	13·24	16·64	21
55	124	84	8,101	...	·24	...	17·06	·02	·10	·27	·19	17·89	18·96	22
61	257	211	10,213	...	·07	...	15·01	·01	·02	·40	·33	15·84	23·55	23
19	125	85	6,796	...	·06	...	13·42	·04	·07	·26	·17	14·02	24·67	24
10	66	15	2,774	...	·26	...	10·42	·01	·01	·26	·06	11·02	17·56	25
1,546	6,105	101,147	454,343	·31	·17	4·78	12·01	1·47	1·86	·36	6·00	26·96	28·74	
...	8	231	475	...	·41	2·15	4·01	2·91	4·25	·46	13·43	27·62	33·36	1
1	4	123	286	...	...	·06	4·70	·59	4·00	·24	7·23	16·82	19·66	2
...	6	116	350	...	...	...	9·97	1·61	5·91	·46	8·90	26·85	39·42	3
...	9	375	689	...	...	·26	3·67	·87	5·11	·29	12·19	22·41	28·99	45
1	6	100	278	·93	...	...	9·04	2·45	2·11	·50	8·45	23·48	32·96	

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Násik District.										
6	Násik	33,163	1	...	784	247	95	131	...	...	15
7	Yeola	16,275	...	...	2	99	23	65	...	...	4
8	Málegaon	19,542	...	110	674	176	44	29	...	...	...
9	Devláli Cantonment.	1,748	...	...	30	7	3	3	...	...	1
	Thána District.										
10	Thána	15,591	...	1	112	157	40	33	1	...	7
11	Bándra	22,855	...	3	80	46	56	46	...	...	10
12	Kalyán	12,600	...	...	41	124	16	38	...	...	8
	Kolába District.										
13	Alibág	3,358	...	...	46	34	7	14	...	...	...
14	Panvel	7,744	...	...	152	51	7	19	...	...	2
15	Mahád	7,164	...	35	...	67	10	...	1	...	5
16	City of Bombay ...	963,363	121	443	3,997	3,098	3,020	10,670	69	26	585
	Ahmednagar District.										
17	Ahmednagar ...	33,878	...	...	237	240	64	275	1	...	12
18	Sangamner... ...	14,269	...	...	3	96	37	13	...	...	1
19	Ahmednagar Cantonment.	7,748	...	1	1	21	3	23	...	...	2
	Poona District.										
20	Poona	126,201	1	10	631	1,333	623	514	...	1	17
21	Junnar	8,820	3	22	4	83	23	13	...	...	5
22	Poona Cantonment .	30,958	...	...	9	251	51	115	...	...	1
23	Kirkee do. ...	9,019	1	...	2	67	40	56	1	...	7
	Sholápur District.										
24	Sholápur	61,032	239	6	1,357	990	608	239	2	...	36
25	Bársi	18,097	...	19	796	196	54	47	...	...	4
26	Pandharpur ...	28,550	...	...	947	403	220	69	...	...	7
	Sátára District.										
27	Sátára	18,665	...	7	260	187	137	45	2	2	9
28	Wái	5,333	...	...	131	31	14	6	...	...	1
29	Karád	11,288	...	...	144	45	51	6	...	...	3
	Ratnágiri District.										
30	Ratnágiri	15,822	...	4	1	122	26	21	...	...	2
31	Vengurla	17,294	4	6	129	212	34	58	...	...	7

VI—*continued.*

		11	12	13										14
RIES.				Ratio of Deaths per 1,000 of Population.								From all Causes.		No.
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	
2	17	423	1,698	·03	...	23·64	7·45	2·86	3·95	·51	12·76	51·20	58·16	6
...	4	186	379	...	...	·12	6·08	1·41	3·99	·25	11·43	23·29	30·31	7
...	...	126	1,159	...	5·63	34·49	9·01	2·25	1·48	...	6·45	59·31	Not available.	8
...	1	45	89	...	...	17·16	4·01	1·71	1·71	·57	25·75	50·91	17·96	9
	8	256	607	...	·06	7·18	10·07	2·57	2·12	·51	16·42	38·93	35·04	10
...	10	362	603	...	·13	3·50	2·01	2·45	2·01	·44	15·84	26·39	30·18	11
...	10	114	343	...	...	3·25	9·84	1·27	3·02	·79	9·05	27·22	37·26	12
...	...	51	152	...	...	13·70	10·13	2·08	4·17	...	15·18	45·26	25·35	13
...	2	103	334	...	...	19·63	6·59	·90	2·45	·26	13·30	43·13	27·43	14
...	6	29	147	...	4·89	...	9·35	1·39	...	·84	4·05	20·52	20·94	15
4	684	12,532	34,565	·13	·46	4·15	3·21	3·13	11·08	·71	13·01	35·88	44·06	16
...	13	49	878	...	...	6·99	7·08	1·89	8·12	·39	1·45	25·92	34·40	17
...	1	76	226	...	...	·21	6·73	2·59	·91	·07	5·33	15·84	29·06	18
...	2	13	64	...	·13	·13	2·71	·39	2·96	·26	1·68	8·26	13·40	19
3	21	1,201	4,334	·01	·08	5·00	10·55	4·94	4·07	·17	9·52	34·34	52·02	20
...	5	33	186	·34	2·49	·46	9·41	2·61	1·47	·57	3·74	21·09	23·36	21
...	1	160	587	...	...	·29	8·12	1·64	3·71	·03	5·17	18·96	36·39	22
...	8	39	213	·11	...	·22	7·43	4·44	6·21	·89	4·32	23·62	31·31	23
2	40	578	4,057	3·92	·10	22·23	16·22	9·96	3·92	·66	9·47	66·48	41·26	24
2	6	254	1,372	...	1·05	43·99	10·83	2·98	2·60	·33	14·04	75·82	37·04	25
1	8	194	1,841	...	...	33·16	14·11	7·71	2·42	·28	6·80	64·48	31·62	26
2	15	100	751	...	·37	13·93	10·02	7·34	2·41	·80	5·36	40·23	32·71	27
...	1	31	214	...	...	24·57	5·81	2·63	1·12	·18	5·81	40·12	29·02	28
...	3	33	282	...	...	12·76	3·99	4·52	·53	·27	2·92	24·98	25·82	29
...	2	31	207	...	·25	·06	7·71	1·64	1·33	·13	1·96	13·08	18·45	30
1	8	105	556	·23	·35	7·46	12·26	1·97	3·35	·46	6·07	32·15	24·19	31

FORMS No.

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Belgaum District.										
32	Belgaum	31,451	...	2	228	85	29	35	...	...	6
33	Gokák	7,326	...	...	722	12	38	14	...	...	7
34	Athni	13,849	...	...	...	36	65	31	...	...	9
35	Belgaum Cantonment.	9,300	...	...	12	18	10	17	...	...	1
	Dhárwár District.										
36	Dhárwár	29,317	12	41	450	113	39	96	1	3	12
37	Hubli	61,440	50	6	694	147	59	413	...	1	16
38	Gadag-Bettigeri ...	30,429	4	...	1,350	131	31	71	...	1	7
39	Ránebennur ...	10,931	1	...	658	27	15	51	1	...	10
	Bijápur District.										
40	Bijápur	27,569	48	1	909	50	18	85	2	...	14
41	Bagalkot	17,294	62	...	420	66	60	71	...	...	6
	Kánara District.										
42	Kárwár	18,045	1	99	...	112	26	9	...	...	2
43	Kumta	10,343	...	6	...	94	30	27	...	...	7
	Surat District.										
44	Surat	114,733	...	217	84	950	130	1,037	...	1	15
45	Bulsár	15,972	...	...	103	76	29	147	1	...	4
	Broach District.										
46	Broach	43,353	...	...	...	231	57	446	...	1	27
47	Jambusar	8,991	...	...	1	109	5	59	2	1	6
	Kaira District.										
48	Kaira	7,297	...	1	...	55	8	119	...	1	1
49	Nadiád	27,145	1	110	71	287	60	340	5	2	10
50	Borsad	11,860	...	...	132	76	47	142	...	2	10
51	Kapadvanj	13,126	...	...	4	144	24	105	...	...	6
	Panch Maháls District.										
52	Godhra	22,102	...	1	12	104	20	32	...	1	2
53	Dohad	9,303	...	...	186	217	4	13	...	...	6
	Ahmedabad District.										
54	Ahmedabad ...	214,000	...	618	16	4,121	255	2,566	3	11	61
55	Gogha	2,958	...	3	37	37	12	33	...	...	1
56	Viramgám	20,769	...	50	...	258	7	113	...	...	1
57	Dholka	13,693	...	15	...	166	16	49	...	...	4
58	Ahmedabad Cantonment.	2,305	...	6	...	16	...	...	...	...	1

VI—*continued.*

		11	12	13										14
BIES.				Ratio of Deaths per 1,000 of Population.										
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	6	367	752	...	·06	7·25	2·70	·92	1·11	·19	11·67	23·91	34·42	32
...	7	130	923	...	...	98·55	1·64	5·19	1·91	·95	17·75	125·99	38·34	33
...	9	159	300	...	...	...	2·59	4·69	2·24	·65	11·48	21·66	40·79	34
...	1	60	118	...	...	1·29	1·93	1·07	1·84	·11	6·45	12·69	19·94	35
1	17	485	1,253	·41	1·40	15·35	3·85	1·33	3·28	·58	16·53	42·74	38·60	36
...	17	1,059	2,445	·81	·10	11·30	2·39	·96	6·72	·28	17·24	39·79	33·63	37
...	8	466	2,061	·13	...	44·37	4·31	1·02	2·33	·26	15·31	67·73	26·07	38
1	12	267	1,031	·09	...	60·20	2·46	1·37	4·67	1·10	24·43	94·32	26·39	39
...	16	250	1,377	1·74	·04	32·97	1·81	·65	3·08	·58	9·07	49·95	23·26	40
...	6	327	1,012	3·58	...	24·29	3·82	3·47	4·10	·35	18·91	58·52	24·08	41
...	2	129	378	·06	5·49	...	6·21	1·44	·50	·11	7·15	20·95	18·96	42
...	7	144	308	...	·58	...	9·09	2·90	2·61	·68	13·92	29·78	29·77	43
...	16	716	3,150	...	1·89	·73	8·28	1·13	9·04	·14	6·24	27·45	24·68	44
...	5	90	450	...	...	6·45	4·76	1·82	9·20	·31	5·63	28·17	27·41	45
2	30	458	1,222	...	...	...	5·33	1·32	10·29	·69	10·56	28·19	32·06	46
6	15	37	226	...	...	·11	12·12	·56	6·56	1·67	4·12	25·14	30·56	47
1	3	43	229	...	·14	...	7·54	1·09	16·31	·41	5·89	31·38	31·98	48
3	20	341	1,230	·04	4·05	2·62	10·57	2·21	12·52	·74	12·56	45·31	45·42	49
2	14	90	501	...	...	11·13	6·41	3·96	11·97	1·18	7·59	42·24	33·74	50
1	7	108	392	...	...	·30	10·97	1·83	8·00	·53	8·23	29·86	34·44	51
2	5	228	402	...	·04	·54	4·70	·90	1·45	·23	10·32	18·18	19·55	52
...	6	48	474	...	...	19·99	25·33	·43	1·40	·64	5·16	50·95	30·12	53
3	78	1,483	9,137	...	2·89	·07	19·26	1·19	11·99	·36	6·93	42·69	53·91	54
...	1	66	189	...	1·01	12·51	12·51	4·06	11·15	·34	22·31	63·89	35·35	55
1	2	216	646	...	2·41	...	12·42	·34	5·44	·09	10·40	31·10	46·28	56
...	4	153	403	...	1·10	...	12·12	1·17	3·58	·29	11·17	29·43	48·38	57
...	1	4	27	...	2·60	...	6·94	...	...	·43	1·74	11·71	8·46	58

FORM No.

1	2	3	4	5	6	7	8	9	10		
											Inju
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Karáchi District.										
59	Karáchi	146,515	9	17	3,086	794	100	510	...	1	46
	Hyderabad District.										
60	Hyderabad ...	75,023	...	51	4	1,096	134	466	...	...	23
	Thar and Párkar District.										
61	Umarkot	3,946	...	3	...	138	3	7	...	...	1
	Lárkhána District.										
62	Lárkhána	16,046	...	2	...	263	1	2	1	...	11
	Sukkur District.										
63	Shikárpur	53,944	...	10	6	949	13	30	1	...	13
64	Sukkur	34,916	...	3	2	601	12	31	...	...	19
	Upper Sind Frontier District.										
65	Jacobabad	11,340	...	2	...	169	2	...	...	...	4
	Total of Towns ...	2,736,810	569	1,938	19,803	20,621	6,852	20,115	97	56	1,147
	Total for the Presidency ...	19,587,383	5,817	4,727	100,399	223,027	31,549	51,470	292	243	5,324

N. B.—Districts A in this statement do not include the population of deaths of

VI—*concluded.*

ES.		11	12	13										14
				Ratio of Deaths per 1,000 of Population.										
nake-bite or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	All other causes.	From all Causes.		No.
												For the year.	Mean of previous five years.	
2	49	2,209	6,774	·06	·12	21·06	5·42	·68	3·48	·34	15·07	46·23	50·60	59
1	24	376	2,201	...	·68	·05	14·61	2·45	6·21	·32	5·01	29·34	39·43	60
...	1	6	158	...	·76	...	34·97	·76	1·77	·25	1·52	40·04	34·44	61
...	12	153	433	...	·12	...	16·39	·06	·12	·75	9·54	26·99	39·88	62
...	14	786	1,799	...	·19	·11	17·42	·24	·56	·26	14·57	33·35	44·43	63
...	19	146	814	...	·09	·06	17·21	·34	·89	·54	4·18	23·31	33·81	64
...	4	55	232	...	·18	...	14·90	·18	...	·35	4·85	20·46	30·76	65
47	1,347	29,724	100,969	·21	·71	7·24	7·53	2·50	7·35	·49	10·86	36·89	39·99	
1,593	7,452	130,871	555,312	·30	·24	5·13	11·38	1·61	2·63	·38	6·68	28·35	30·54	

Towns B. In all the other statements "Districts" include Towns.

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1911.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Cholera were reported.	Number in each District.	Number from which deaths from Cholera were reported.													Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	6	1,438	10	...	...	...	...	...	...	5	18	12	2	...	...	20	17	37	·03	·03	·03	1·04	1
2	West Khándesh ...	10	5	1,096	8	...	...	...	...	...	...	...	17	20	1	...	...	22	16	38	·07	·05	·06		2
3	Násik	16	4	1,649	11	...	...	...	1	...	...	...	17	11	11	2	15	30	27	57	·06	·06	·06	1·82	3
4	Thána	12	4	1,643	23	13	...	...	...	...	...	49	60	26	32	2	...	96	86	182	·21	·20	·20	1·38	4
5	Kolába	11	8	1,461	21	...	50	205	11	3	...	...	...	...	4	5	31	139	170	309	·47	·57	·52	1·96	5
6	City of Bombay ...	1	1	1	1	51	3	3	...	1	3	8	8	12	9	3	20	92	29	121	·15	·09	·13	·61	6
	Central Registration District.																								
7	Ahmednagar	14	4	1,348	12	6	...	...	...	...	...	...	...	53	63	23	17	83	79	162	·17	·17	·17	1·05	7
8	Poona	12	8	1,201	26	1	...	...	...	1	...	...	...	6	15	4	114	56	85	141	·11	·16	·13	1·89	8
9	Sholápur	10	7	718	79	3	...	...	...	...	...	194	354	306	45	21	15	494	444	938	1·26	1·18	1·22	1·82	9
10	Sátára	15	1	1,346	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	·00	...	·00	1·53	10
11	Ratnágiri	10	4	1,311	5	24	...	...	...	...	...	2	2	...	...	...	11	15	24	39	·03	·04	·03	·09	11
	Southern Registration District.																								
12	Belgaum	12	5	1,070	16	...	...	...	2	14	8	33	19	3	64	20	...	74	89	163	·15	·19	·17	1·07	12
13	Dhárwár	17	15	1,295	132	...	...	...	2	48	45	139	161	299	633	194	129	902	748	1,650	1·73	1·48	1·61	1·01	13
14	Bijápur...	10	10	1,122	206	...	27	70	189	115	497	503	415	72	71	3	...	1,003	959	1,962	2·31	2·24	2·27	1·40	14
15	Kánara...	13	3	1,265	3	...	...	...	1	...	1	...	...	1	...	...	...	2	1	3	·01	·00	·01	·54	15
	Gujarát Registration District.																								
16	Surat	10	1	760	1	...	...	...	...	...	...	...	...	2	...	...	...	2	...	2	·01	...	·00	·37	16
17	Broach...	8	1	409	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	·01	·00	·13	17
18	Kaira	11	2	586	2	1	...	...	...	...	...	1	...	...	...	...	...	2	...	2	·01	...	·00	·34	18
19	Panch Mahals ...	7	...	660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	19
20	Ahmedabad	12	...	880	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·32	20
	Sind Registration District.																								
21	Karáchi	11	1	665	1	...	...	...	...	...	2	1	1	3	1	1	...	8	1	9	·03	·00	·02	·69	21
22	Hyderabad	15	...	1,529	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·30	22
23	Thar ard Párkar ...	12	...	957	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·02	23
24	Lárkhána	12	...	737	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·45	24
25	Sukkur...	10	...	684	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·36	25
26	Upper Sind Frontier .	6	...	422	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·28	26
	Total for the Presidency.	293	90	26,253	559	99	80	278	208	182	556	935	1,072	826	951	278	352	3,041	2,776	5,817	·30	·29	·30	·95	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1911.*

1	2	3		4		5												6			7		8			9	10
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			NUMBER OF THESE DEATHS AMONG CHILDREN.		RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Small-pox were reported.	Number in each District.	Number from which deaths from Small-pox were reported.													Male.	Female.	Total.	Under 1 year.	Under 10 years.	Male.	Female.	Total.		
	Western Registration District.																										
1	East Khándesh ...	16	7	1,438	14	...	6	6	13	6	1	3	...	1	...	...	...	22	14	36	13	33	·04	·02	·03	·29	1
2	West Khándesh ...	10	1	1,096	1	...	...	...	...	...	...	...	...	2	...	...	...	...	2	2	1	1	...	·01	·01		2
3	Násik	16	8	1,649	20	2	...	6	8	12	8	5	4	5	1	11	101	84	79	163	27	32	·18	·18	·18	·24	3
4	Thána	12	11	1,643	63	24	36	23	27	20	14	11	9	1	2	...	...	83	84	167	25	79	·18	·20	·19	·20	4
5	Kolába	11	8	1,461	89	44	32	42	49	52	30	22	10	4	4	3	2	156	138	294	98	163	·52	·46	·49	·36	5
6	City of Bombay ...	1	1	1	1	11	45	105	92	82	33	20	12	12	6	10	15	252	191	443	98	137	·40	·57	·46	·61	6
	Central Registration District.																										
7	Ahmednagar	14	8	1,348	22	10	11	5	12	2	3	...	1	2	...	...	...	30	26	46	17	21	·04	·06	·05	·11	7
8	Poona	12	10	1,201	61	32	26	35	28	11	9	13	10	4	3	2	3	91	85	176	40	75	·17	·16	·17	·17	8
9	Sholápur	10	9	718	22	...	13	18	16	7	1	5	8	4	...	2	...	44	30	74	18	15	·11	·08	·10	·16	9
10	Sátára	15	9	1,346	22	7	13	6	3	5	...	1	4	4	...	4	5	29	23	52	12	7	·05	·04	·05	·06	10
11	Ratnágiri	10	10	1,311	98	16	21	43	38	38	33	32	16	16	8	19	27	152	155	307	62	41	·27	·24	·25	·20	11
	Southern Registration District.																										
12	Belgaum	12	3	1,070	4	1	1	...	1	1	...	...	...	...	...	...	2	5	1	6	...	3	·01	·00	·01	·13	12
13	Dhárwar...	17	5	1,295	5	...	1	...	...	2	...	1	5	5	7	10	19	21	29	50	10	29	·04	·06	·05	·17	13
14	Bijápur	10	8	1,122	39	13	25	12	9	5	10	6	1	2	...	...	6	49	40	89	28	34	·11	·09	·10	·14	14
15	Kánara	13	10	1,265	54	50	37	61	70	48	45	43	18	10	8	7	6	205	198	403	77	105	·92	·94	·94	·57	15
	Gujarát Registration District.																										
16	Surat	10	5	760	11	...	9	56	79	85	1	...	...	...	...	1	2	115	118	233	41	185	·35	·36	·36	·10	16
17	Broach	8	6	409	6	...	2	4	4	2	3	3	...	...	...	...	...	8	10	18	6	7	·05	·06	·06	·13	17
18	Kaira	11	8	586	27	1	9	35	41	58	22	9	1	...	...	...	...	87	89	176	78	85	·23	·28	·25	·04	18
19	Panch Mahals	7	3	660	4	...	...	...	1	2	2	...	...	1	...	...	1	6	1	7	1	1	·04	·00	·02	·06	19
20	Ahmedabad	12	12	880	38	134	163	274	141	49	14	3	...	...	...	...	2	384	396	780	361	367	·89	1·00	·94	·22	20
	Sind Registration District.																										
21	Karáchi	11	10	665	186	43	54	86	89	142	20	45	11	46	24	31	70	353	308	661	113	317	1·22	1·36	1·28	·26	21
22	Hyderabad	15	14	1,529	57	54	30	27	40	39	16	17	9	8	5	14	19	164	114	278	54	83	·29	·25	·27	·15	22
23	Thar and Párkar ...	12	11	957	25	4	11	7	12	12	10	5	2	1	3	11	32	68	42	110	6	12	·27	·21	·24	·04	23
24	Lárkhána...	12	7	737	16	13	...	3	2	16	4	1	4	2	...	...	2	20	27	47	8	23	·06	·09	·07	·07	24
25	Sukkur	10	5	684	9	8	3	4	6	5	...	3	1	...	2	10	...	25	17	42	11	11	·08	·07	·07	·06	25
26	Upper Sind Frontier ...	6	5	422	19	8	15	5	25	5	2	1	...	...	...	2	4	33	34	67	10	20	·23	·29	·25	·08	26
	Total for the Presidency.	293	194	26,253	913	475	563	833	806	706	281	249	126	130	73	137	318	2,476	2,251	4,727	1,212	1,931	·24	·24	·24	·20	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVERS *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1911.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from fevers were reported.	Number in each District.	Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,438	1,231	725	712	813	911	1,012	571	736	1,001	890	851	804	844	4,990	4,790	9,780	9·57	9·34	9·45	14·63	1
2	West Khándesh ...	10	10	1,096	982	502	479	542	642	575	351	455	650	538	633	732	678	3,468	3,309	6,777	11·83	11·52	11·67	16·79	2
3	Násik	16	16	1,640	1,428	820	764	742	826	732	568	650	740	666	774	1,252	1,316	4,950	4,900	9,850	10·88	10·92	10·90	13·70	3
4	Thána	12	12	1,643	1,547	1,638	1,690	1,534	1,201	983	793	694	931	1,058	1,292	1,679	1,353	7,734	7,112	14,846	16·93	16·76	16·85	18·54	4
5	Kolába	11	11	1,461	1,345	984	1,160	1,243	989	734	587	616	676	647	698	752	838	4,956	4,868	9,824	16·80	16·28	16·54	16·44	5
6	City of Bombay — *Central Registration District.*	1	1	1	1	259	265	271	265	246	193	203	242	221	296	298	339	1,957	1,141	3,098	3·11	3·42	3·21	3·69	6
7	Ahmednagar ...	14	14	1,348	1,148	548	524	518	398	510	560	593	688	728	662	716	629	3,774	3,300	7,074	7·94	7·04	7·49	11·04	7
8	Poona	12	12	1,201	1,119	1,015	861	990	1,179	1,093	897	961	749	842	709	1,034	1,311	6,023	5,618	11,641	11·19	10·67	10·93	13·01	8
9	Sholápur	10	10	718	693	668	567	605	599	718	589	827	1,047	1,044	891	808	669	4,569	4,463	9,032	11·68	11·85	11·75	14·57	9
10	Sátára	15	15	1,346	1,163	797	713	801	781	814	795	740	797	833	730	771	839	4,826	4,585	9,411	8·98	8·46	8·71	10·33	10
11	Ratnágiri	10	10	1,311	1,277	1,477	1,730	1,692	1,483	1,284	1,073	1,124	1,267	1,241	1,197	1,084	1,169	7,785	8,041	15,826	14·07	12·37	13·15	12·75	11
	Southern Registration District.																								
12	Belgaum	12	12	1,070	920	383	389	424	416	399	351	385	371	386	403	430	398	2,418	2,294	4,712	5·05	4·95	5·00	5·38	12
13	Dhárwár	17	17	1,295	1,226	788	799	732	631	751	659	817	983	893	851	911	864	4,933	4,796	9,729	9·49	9·50	9·49	7·00	13
14	Bijápur	10	10	1,122	1,057	627	515	599	593	627	699	755	792	772	823	785	641	4,204	4,029	8,233	9·69	9·39	9·54	8·20	14
15	Kánara	13	13	1,265	1,035	686	745	721	478	424	394	454	462	486	428	496	486	3,149	3,111	6,260	14·18	14·79	14·54	15·28	15
	Gujarát Registration District.																								
16	Surat	10	10	760	742	327	937	1,010	873	851	651	698	713	632	693	731	782	4,814	4,614	9,428	14·72	14·10	14·42	15·15	16
17	Broach	8	8	409	383	496	512	544	482	398	362	419	432	363	340	339	371	2,568	2,490	5,058	16·23	16·77	16·49	21·73	17
18	Kaira	11	11	586	544	572	574	717	710	688	514	693	581	422	422	387	479	3,512	3,247	6,759	9·49	10·10	9·77	12·06	18
19	Panch Mahális ...	7	7	660	567	436	472	456	359	384	308	298	263	246	275	304	361	2,313	1,959	4,272	13·34	12·50	12·93	18·28	19
20	Ahmedabad ...	12	12	880	829	1,496	1,663	1,858	1,672	1,372	1,038	1,149	1,048	1,088	1,104	1,188	1,208	8,152	7,731	15,883	18·86	19·56	19·20	25·68	20
	Sind Registration District.																								
21	Karáchi	11	11	665	665	474	406	362	304	300	291	292	190	283	356	396	388	2,222	1,820	4,042	7·65	8·06	7·83	10·22	21
22	Hyderabad ...	15	15	1,529	1,529	1,864	1,656	1,393	1,140	1,063	904	752	646	654	823	903	1,153	7,269	5,682	12,951	12·73	12·22	12·50	15·55	22
23	Thar and Párkar...	12	12	957	957	966	1,116	972	799	692	465	396	292	322	477	572	895	4,302	3,562	7,864	16·85	17·69	17·22	18·32	23
24	Lárkhána	12	12	737	737	1,309	1,246	960	776	648	568	470	531	621	805	1,025	983	5,400	4,542	9,942	15·03	15·06	15·04	22·16	24
25	Sukkur	10	10	684	684	1,143	966	798	619	686	552	489	427	438	597	665	684	4,419	3,625	8,044	14·13	13·90	14·03	24·22	25
26	Upper Sind Frontier	6	6	422	423	312	336	261	273	215	209	199	182	178	197	206	223	1,545	1,246	2,791	10·62	10·61	10·61	17·09	26
	Total for the Presidency ...	293	293	26,253	24,231	21,712	21,777	21,565	19,459	18,179	14,942	15,864	16,701	16,482	17,227	19,268	19,901	116,152	106,875	223,027	11·40	11·37	11·38	13·70	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1911.*

1	2	3		4		5												6			7			8	
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	
		Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,438	391	82	106	106	131	140	111	229	283	149	111	75	89	785	827	1,612	1·51	1·61	1·58	6·22	
2	West Khándesh ...	10	10	1,096	96	12	13	23	11	19	16	25	46	21	15	13	14	131	97	228	·44	·34	·39		
3	Násik	16	16	1,649	342	53	38	61	82	66	63	86	105	110	66	62	102	482	412	894	1·06	·92	·99	2·01	
4	Thána	12	12	1,643	284	102	54	35	32	43	41	77	91	63	44	57	75	408	311	719	·88	·73	·82	1·18	
5	Kolába... ...	11	11	1,461	373	78	55	82	64	44	42	85	121	91	41	35	69	459	339	798	1·55	1·13	1·34	1·76	
6	City of Bombay ... *Central Registration District.*	1	1	1	1	291	253	252	259	233	169	306	304	229	207	209	308	1,632	1,383	3,020	2·60	4·16	3·13	3·53	
7	Ahmednagar	14	14	1,348	791	172	159	193	125	231	309	265	300	278	213	167	190	1,318	1,284	2,602	2·77	2·74	2·76	5·54	
8	Poona	12	12	1,201	705	245	224	248	297	209	185	328	253	485	332	320	429	1,962	1,593	3,555	3·64	3·02	3·34	4·41	
9	Sholápur	10	10	718	561	224	201	201	191	157	193	462	563	531	450	366	232	2,111	1,705	3,816	5·39	4·52	4·97	6·00	
10	Sátára	15	15	1,346	659	175	153	153	192	220	233	302	330	332	260	243	203	1,414	1,377	2,791	2·62	2·54	2·58	4·95	
11	Ratnágiri	10	10	1,311	920	290	253	234	202	93	151	321	331	306	260	281	306	1,646	1,382	3,028	2·97	2·13	2·52	1·79	
	Southern Registration District.																								
12	Belgaum	12	12	1,070	578	149	138	136	158	203	230	279	267	232	199	173	145	1,132	1,177	2,309	2·37	2·54	2·45	4·06	
13	Dhárwár	17	17	1,295	392	95	77	66	96	109	110	114	156	94	124	99	98	612	626	1,238	1·18	1·24	1·21	1·40	
14	Bijápur	10	10	1,122	531	90	82	93	110	122	157	200	274	247	189	157	123	873	971	1,844	2·02	2·26	2·14	2·77	
15	Kánara	13	13	1,265	287	92	68	72	45	55	71	86	111	78	74	52	71	471	404	875	2·12	1·92	2·03	2·74	
	Gujarát Registration District.																								
16	Surat	10	10	760	100	24	22	37	25	40	21	57	38	26	17	20	25	181	171	352	·55	·52	·54	·55	
17	Broach...	8	8	409	62	13	19	13	8	14	17	18	24	20	16	13	13	100	88	188	·63	·59	·61	·65	
18	Kaira	11	11	586	163	27	34	54	75	80	80	123	109	57	44	34	53	430	340	770	1·16	1·06	1·11	1·30	
19	Panch Mahális ...	7	7	660	18	7	2	7	2	6	1	11	4	2	2	4	4	33	19	52	·20	·12	·16	·40	
20	Ahmedabad ...	12	11	880	54	22	27	23	36	25	36	54	41	37	39	41	38	235	184	419	·54	·47	·51	·52	
	Sind Registration District.																								
21	Karáchi	11	8	665	18	6	7	6	9	12	11	5	13	19	20	20	12	83	57	140	·29	·25	·27	·35	
22	Hyderabad	15	11	1,529	23	42	21	15	12	19	17	6	14	16	13	27	24	128	98	226	·22	·21	·22	·49	
23	Thar and Párkar ...	12	7	957	9	1	2	...	2	...	...	3	1	1	1	3	2	11	5	16	·04	·02	·03	·04	
24	Lárkhána	12	5	737	8	1	...	1	3	1	...	...	...	1	3	...	...	4	6	10	·01	·02	·02	·06	
25	Sukkur...	10	6	684	7	3	3	7	2	3	2	4	3	5	1	6	3	25	17	42	·08	·07	·07	·16	
26	Upper Sind Frontier	6	4	422	4	...	...	2	1	1	...	...	...	1	...	...	...	2	3	5	·01	·03	·02	·05	
	Total for the Presidency ...	293	267	26,253	7,377	2,296	2,011	2,125	2,160	2,150	2,271	3,446	3,782	3,471	2,741	2,477	2,619	16,668	14,881	31,549	1·63	1·58	1·61	2·58	

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1911.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.													Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,438	907	303	361	360	308	248	161	169	272	228	253	285	385	1,808	1,525	3,333	3·46	2·97	3·22	3·29	1
2	West Khándesh...	10	10	1,096	373	114	142	135	122	92	40	65	67	62	78	143	97	647	510	1,157	2·21	1·78	1·99		2
3	Násik ...	16	16	1,649	336	287	279	219	228	184	138	170	188	206	208	245	261	1,306	1,307	2,613	2·87	2·91	2·89	3·58	3
4	Thána ...	12	12	1,643	296	69	87	73	58	66	51	49	60	48	61	82	69	458	316	774	1·00	·74	·87	·96	4
5	Kolába, ...	11	10	1,461	227	36	44	31	29	33	24	24	31	26	39	45	50	293	129	422	·79	·63	·71	·70	5
6	City of Bombay...	1	1	1	1	1,056	1,104	1,185	961	864	620	764	753	758	811	784	970	5,805	4,865	10,670	9·21	14·59	11·08	13·06	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,348	786	254	212	217	192	167	174	210	227	293	269	237	246	1,289	1,409	2,698	2·71	3·01	2·86	5·37	7
8	Poona ...	12	12	1,201	613	228	246	160	191	167	126	144	174	395	219	314	329	1,343	1,350	2,693	2·50	2·56	2·53	3·62	8
9	Sholápur ...	10	10	718	322	158	127	93	51	65	60	80	102	149	110	91	125	564	627	1,191	1·44	1·66	1·55	1·63	9
10	Sátára ...	15	15	1,346	312	71	64	67	36	45	55	84	87	78	84	107	93	412	459	871	·77	·85	·81	·87	10
11	Ratnágiri ...	10	10	1,311	722	194	230	189	164	122	144	133	163	184	185	167	190	1,108	957	2,065	2·00	1·47	1·72	1·70	11
	Southern Registration District.																								
12	Belgaum ...	12	12	1,070	557	182	178	177	154	137	106	107	135	147	194	185	145	970	877	1,847	2·03	1·89	1·96	2·46	12
13	Dhárwár ...	17	17	1,295	634	290	219	214	193	166	140	160	227	232	201	253	267	1,116	1,446	2,562	2·15	2·86	2·50	2·13	13
14	Bijápur ...	10	10	1,122	588	173	170	162	142	109	128	134	156	154	156	158	159	963	828	1,791	2·22	1·93	2·08	2·12	14
15	Kánara ...	13	13	1,265	211	56	59	38	34	28	15	31	31	25	34	32	31	227	187	414	1·02	·89	·96	·92	15
	Gujarát Registration District.																								
16	Surat ...	10	10	760	560	379	346	466	387	301	277	327	310	309	340	369	434	2,379	1,866	4,245	7·28	5·70	6·49	7·43	16
17	Broach ...	8	8	409	242	148	98	141	147	101	92	103	109	110	119	135	161	846	618	1,464	5·35	4·16	4·77	6·44	17
18	Kaira ...	11	11	536	512	410	449	571	556	488	489	577	419	419	364	391	418	3,065	2,486	5,551	8·28	7·73	8·03	9·30	18
19	Panch Mahals ...	7	7	660	82	21	20	17	13	4	5	13	12	15	6	21	21	105	53	158	·63	·34	·49	·68	19
20	Ahmedabad ...	12	11	880	224	311	351	389	321	335	232	277	257	265	306	295	326	1,937	1,708	3,645	4·48	4·32	4·40	5·14	20
	Sind Registration District.																								
21	Karáchi ...	11	7	665	21	59	51	40	25	32	54	36	41	48	54	59	80	335	244	579	1·15	1·08	1·12	1·21	21
22	Hyderabad ...	15	14	1,529	28	63	55	53	48	61	43	5	49	39	40	56	48	258	302	560	·45	·65	·54	·66	22
23	Thar and Párkar.	12	6	957	13	20	27	29	2	...	1	1	...	2	1	1	10	38	16	54	·15	·08	·12	·08	23
24	Lárkhána ...	12	5	737	10	7	1	...	...	...	1	1	1	1	1	...	...	12	1	13	·03	·00	·02	·04	24
25	Sukkur ...	10	8	684	8	4	12	7	13	11	10	7	5	4	4	12	9	66	32	98	·21	·12	·17	·23	25
26	Upper Sind Frontier ...	6	2	422	3	1	...	...	...	...	...	...	1	...	...	...	1	3	...	3	·02	...	·01	·00	26
	Total for the Presidency ...	293	267	26,253	8,987	4,904	4,972	4,963	4,375	3,826	3,176	3,651	3,877	4,197	4,137	4,467	4,925	27,293	24,177	51,470	2·68	2·57	2·63	3·10	

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1911.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.													Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh...	16	14	1,438	179	657	736	490	147	6	...	32	406	846	399	117	147	2,075	1,998	4,073	3·98	3·90	3·94	1·69	1
2	West Khándesh...	10	6	1,096	16	49	28	7	4	...	...	2	2	29	36	46	45	130	118	248	·44	·40	·42		2
3	Násik ...	16	14	1,649	174	757	426	245	69	11	11	124	315	986	1,153	921	805	2,901	2,921	5,822	6·37	6·51	6·44	·13	3
4	Thána ...	12	11	1,643	96	105	210	181	140	88	79	98	116	111	45	35	43	667	584	1,251	1·46	1·33	1·42	·99	4
5	Kolába ...	11	8	1,461	28	93	170	201	263	85	52	26	39	32	22	25	36	550	434	984	1·86	1·45	1·66	·81	5
6	City of Bombay...	1	1	1	1	110	385	871	1,203	799	192	111	65	60	33	30	43	2,824	1,173	3,997	4·48	3·52	4·15	7·12	6
	Central Registration District.																								
7	Ahmednagar ...	14	13	1,348	72	1	5	35	38	3	...	35	167	606	626	221	167	937	987	1,924	1·97	2·10	2·04	·26	7
8	Poona ...	12	12	1,201	77	30	21	41	13	9	5	34	141	174	312	393	401	804	770	1,574	1·49	1·46	1·48	4·42	8
9	Sholápur ...	10	10	718	195	553	782	483	105	28	54	114	399	1,631	1,202	1,014	578	3,472	3,561	7,033	8·87	9·45	9·16	·37	9
10	Sátára ...	15	15	1,346	176	526	242	346	86	27	28	123	304	450	630	787	723	2,039	2,233	4,272	3·78	4·12	3·95	9·17	10
11	Ratnágiri ...	10	8	1,311	25	14	72	54	79	67	16	20	27	13	10	12	11	206	189	395	·39	·29	·33	·23	11
	Southern Registration District.																								
12	Belgaum ...	12	11	1,070	293	677	629	318	171	105	176	681	1,513	2,335	2,892	1,733	1,026	6,323	6,435	12,758	13·22	13·88	13·54	5·53	12
13	Dhárwár ...	17	17	1,295	729	1,240	1,208	921	402	276	640	2,074	5,291	10,665	9,937	3,945	1,824	19,205	19,218	38,523	37·13	38·05	37·58	1·65	13
14	Bijápur ...	10	10	1,122	307	15	22	15	1	8	...	28	200	786	2,890	3,304	2,837	5,016	5,129	10,145	11·56	11·95	11·76	·36	14
15	Kánara ...	13	3	1,265	9	14	2	...	2	11	16	10	3	12	50	56	34	103	104	207	·46	·49	·48	·28	15
	Gujarát Registration District.																								
16	Surat ...	10	9	760	95	158	338	279	174	52	34	67	199	199	66	44	69	791	879	1,670	2·42	2·69	2·55	1·95	16
17	Broach ...	8	2	409	2	...	9	28	17	2	...	1	...	...	...	...	...	28	29	57	·18	·20	·19	1·34	17
18	Kaira ...	11	10	586	21	239	340	528	246	15	...	10	23	124	51	21	...	766	832	1,597	2·07	2·59	2·31	5·92	18
19	Panch Mahals ...	7	4	660	29	140	141	95	9	...	...	...	...	...	...	...	...	212	179	391	1·28	1·14	1·21	1·41	19
20	Ahmedabad ...	12	7	880	30	50	84	128	136	1	...	...	...	16	7	3	12	148	179	327	·34	·45	·40	3·01	20
	Sind Registration District.																								
21	Karáchi ...	11	4	665	59	105	226	402	1,226	875	96	28	18	7	5	16	14	1,781	1,337	3,118	6·13	5·92	6·04	5·77	21
22	Hyderabad ...	15	5	1,529	8	...	3	13	5	13	6	...	...	...	...	...	...	24	...	24	·04	...	·02	·02	22
23	Thar and Párkar.	12	...	957	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·00	23
24	Lárkhána ...	12	1	737	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	·00	...	·00	·02	24
25	Sukkur ...	10	1	684	1	...	1	2	1	4	...	...	...	...	...	...	...	6	2	8	·02	·01	·01	·04	25
26	Upper Sind Frontier ...	6	...	422	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·00	26
	Total for the Presidency ...	293	196	26,253	2,668	5,536	6,077	5,763	4,480	2,580	1,469	3,638	9,318	19,582	20,456	12,723	8,837	51,108	49,291	1,00,399	5·02	5·24	5·13	2·40	

N. B.—These figures do not include deaths among Europeans, Eurasians and Fighting men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

FORTY-NINTH ANNUAL REPORT

OF THE

Sanitary Commissioner for the Government of Bombay

1912

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency,

AND

The Annual Reports of the Health Officers of the Ports of Bombay Karachi and Aden.

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1913

ANNUAL SANITARY REPORT, 1912.

(Maximum limit, 25 pages.)

CONTENTS.

SECTION I.—METEOROLOGY—*Nil.*

SECTION II.—EUROPEAN ARMY—*Nil.*

SECTION III.—NATIVE ARMY—*Nil.*

SECTION IV.—JAILS—*Nil.*

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

PARA.		PAGE
1—2.	Births and deaths among Europeans and Eurasians	1
3—4.	Native population in the Presidency	*ib*
	BIRTHS.	
8.	Number of registered births	2
9.	Births by sexes	3
10.	Births by years	*ib.*
11.	Birth-rates in urban and rural population	*ib.*
12.	Birth-rates in rural registration circles	*ib.*
13.	Birth-rates in urban and cantonment circles	*ib.*
14.	Still-born	*ib.*
	DEATHS.	
15.	Number of deaths	3
16.	Deaths by years	*ib.*
17.	Death-rate	*ib.*
18.	Male and female death-rate	3—4
19.	Deaths by registration districts	4
20.	Deaths by collectorates	*ib.*
21.	Birth and death-rates compared by collectorates to columns 6 and 9, Annual Form II	*ib.*
22.	Deaths by ages and sexes, Annual Form IV	*ib.*
23.	Deaths by caste or class...	*ib.*
24—25.	Infant mortality	4—6
26.	Statistics of Ahmedabad	6
27.	Deaths by causes	*ib.*
28.	Death-rates among urban and rural population...	7
29.	Death-rates in rural circles	*ib.*
30.	Death-rates in town circles	*ib.*
31.	Death-rates in cantonments in British territory	*ib.*
	CANTONMENTS IN QUASI-FOREIGN TERRITORY.	
32.	Statistics of cantonments in quasi-foreign territory	7—8
33—34.	Remarks on the mortality during the year, rainfall and prices of food-grains	8

PARA. PAGE

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

35. Mortality in 1912 9
36. Deaths by collectorates ... ... *ib.*
37. Monthly mortality ... ... 9—10
38. Mortality for 20 years, 1893 to 1912 inclusive 10
39. Cholera-producing causes and preventive measures adopted ... 10—12

SMALL-POX.

40. Deaths from small-pox 12
41. Deaths by registration districts and collectorates 13
42. Deaths by age ... ... *ib.*
43. Preventive measures adopted ... ... *ib.*

FEVERS.

44. Deaths from fever 14
45. Deaths by registration districts and collectorates ... ... *ib.*
46. Deaths by months ... ... *ib.*
47. Malarial fevers, preventive measures ... ... 14—17

PLAGUE.

48. Deaths from plague 17
49. Deaths by registration districts and collectorates ... ... *ib.*
50. Deaths by months ... ... *ib.*
51. Plague preventive measures 18
52. Deaths among the inoculated ... ... *ib.*

DYSENTERY AND DIARRHŒA.

53. Deaths from dysentery and diarrhœa 18
54. Deaths by registration districts and collectorates ... ... 18—19
55. Deaths by months 19

INJURIES.

56. Deaths from injuries 19
57. Deaths from injuries in 1911 and 1912 by sexes ... ... *ib.*
58. Deaths from snake-bite 20
59. Death from drowning ... ... *ib.*
60. Suicidal deaths ... ... *ib.*

RESPIRATORY DISEASES.

61. Deaths from respiratory diseases 20
62. Deaths by registration districts and collectorates ... ... *ib.*
63. Deaths by months ... ... 20—21

OTHER CAUSES.

64. Deaths from 'other causes' 21
65. Deaths from registration districts and collectorates ... ... *ib.*

SECTION VII.

66. General History of Vaccination 22

SECTION VIII.

67. Sanitary Works—Military 22

PARA. PAGE

SECTION IX.

68. Expenditure on sanitary works in municipal towns during the year 1911-1912 22
69. Expenditure on sanitary works in District and Táluka Local Boards during the year 1911-1912 ... ... 22—23
70. Expenditure on urban sanitary works ... ... 23—25
71. Bombay Village Sanitation Act ... ... 25—27
72. Village Sanitary Inspection Books 27
73. Complete Sanitary Surveys of towns and villages ... ... 27—28

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

74. Charge of the office of the Sanitary Commissioner 28
75. The districts visited by the Sanitary Commissioner ... ... *ib.*
76. Tours of the Deputy Sanitary Commissioners ... ... *ib.*

APPENDIX I.

Annual Report of the Sanitary Board for 1912 ... ... 1—5

APPENDIX II (*a*).

Annual Report of the Health Officer of the Port of Bombay for 1912 ... 6—12

APPENDIX II (*b*).

Annual Report of the Health Officer of the Port of Karáchi ... ... 13—17

APPENDIX II (*c*).

Annual Report of the Health Officer of the Port of Aden ... ... 18—21

APPENDIX III.

Table showing the drainage and water-works completed in certain towns ... 22

APPENDIX IV.

Births registered in districts 23
Deaths registered in districts 24
Deaths registered in the districts during each month of the year ... 25
Deaths registered in the districts according to age ... ... 26—27
Deaths registered in the districts according to classes ... ... 28—29
Deaths from different causes in the districts and towns ... ... 30—37
Deaths from cholera in the districts during each month of the year ... 38
Deaths from small-pox in the districts during each month of the year ... *ib.*
Deaths from fever in the districts during each month of the year ... 39
Deaths from dysentery and diarrhœa in the districts during each month of the year ... ... *ib.*
Deaths from respiratory diseases in the districts during each month of the year 40
Deaths from plague in the districts during each month of the year ... *ib.*

ANNUAL SANITARY REPORT FOR 1912.

SECTION I.—METEOROLOGY.—No remarks.

SECTION II.—EUROPEAN ARMY.—No remarks.

SECTION III.—NATIVE ARMY.—No remarks.

SECTION IV.—JAILS.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

European and Eurasian Vital Statistics.

1. The European population in the Bombay Presidency, exclusive of cantonments in *quasi*-foreign territory, is 30,192 according to the census of 1911. During the year 1912, 372 births and 358 deaths were recorded against 403 and 333 in 1911, giving a birth-rate of 12·34 per mille against 13·35 in 1911, and a death-rate of 11·86 against 11·03.

By sexes, 196 male and 176 female births were recorded against 211 and 192 in 1911, and 217 male and 141 female deaths were recorded against 215 and 118 in 1911.

2. The Eurasian census population of 1911 is 8,902. During the year 143 births were registered against 168 in 1911, and 172 deaths against 184, corresponding to a birth-ratio of 16·06 per mille against 18·87 in 1911, and a death-ratio of 19·32 against 20·67.

Of the births 72 were males and 71 females against 84 and 84 in 1911, whilst of the deaths 81 were males and 91 females against 85 and 99 in 1911.

Native Population—Vital Statistics.

3. For the compilation of these statistics, the census figures of 1911 have been used. These show a native population for the Presidency of Bombay, including Sind, of 19,587,383 persons.

4. Since the last census enumeration population in the British Districts of the Presidency has increased by 6 per cent., the proportion being 7 per cent. males and 5 per cent. females. The natural increase of population during the decade 1901—10 was greatly hampered by the disturbing influences of famine, scarcity and plague, and in the following table is set forth the variations of population, as recorded at the last three census periods, for the districts of the Presidency, excluding Sind :—

		Population at Census of		
		1891.	1901.	1911.
Gujarát Registration District.	Surat District	649,824	636,882	653,974
	Broach do.	341,450	291,729	306,667
	Kaira do.	871,529	716,253	691,642
	Panch Mahals District	313,381	261,003	322,653
	Ahmedabad do.	920,928	795,344	827,337
Western Registration District.	East Khándesh District	1,460,319	957,131	1,034,214
	West Khándesh do.		469,654	580,680
	Násik District	841,087	815,349	903,644
	Thána do.	818,267	810,832	880,908
	Kolába do.	594,779	605,507	594,057
Central Registration District.	Ahmednagar District	887,656	836,817	943,991
	Poona District	1,061,449	989,102	1,064,806
	Sátára do.	1,225,511	1,146,080	1,080,793
	Sholápur do.	750,255	720,587	763,017
	Ratnágiri District	1,105,862	1,167,875	1,203,602
Southern Registration District.	Belgaum District	1,011,453	992,262	941,948
	Dhárwár do.	1,050,538	1,112,612	1,025,086
	Bijápur do.	796,286	735,400	862,927
	Kánara do.	446,156	454,417	430,434

5. The census of 1901 was taken at a time when many districts were feeling the effects of the great famine of 1899-1900, and accordingly large reductions of population were recorded over a great part of the Presidency. During the decade 1901-1910, notwithstanding the ravages effected by plague, and a succession of irregular rainy seasons, there has been an increase in population in all except six districts, this increase varying according to the lightness of the incidence of plague, which was the greatest disturbing factor during the decade. In Panch Mahâls, East and West Khándesh, Násik, Ahmednagar and Bijápur Districts the rise is very marked, whereas in other districts the figures, although higher than those recorded in 1901, have not reached the level of 1891.

6. The six exceptions are Kaira, Sátára, Belgaum, Dhárwár, Kánara and Kolába Districts.

The first four comprise the districts which have borne the burnt of plague during the decade, and more especially during the last five years. One remarkable feature of the plague in Kaira District has always been the high percentage of mortality among the female population, and it is this fact, more than the total mortality, which has tended towards reduction of population. The decline in Kánara District is probably due to increasing mortality from malaria, which seems especially to effect women of a child bearing age.

The population of Kolába is always a fluctuating quantity, depending on the numbers away at work in Bombay.

7. Statistical returns are received from 26 Collectorates, comprising 228 rural circles and 59 towns, from 6 cantonments in British territory, and from 7 in Foreign territory.

The population of the rural circles is 16,850,573, of the town circles 2,675,732, of the Cantonments in British territory 61,078 and of the Cantonments in Foreign territory, 100,089 persons.

Births.

8. The births registered in the Bombay Presidency, including Sind, in the year 1912 numbered 684,890 and were in the proportion of 34·97 per 1,000 of population of all ages. These figures show a decrease of 20,200 as compared with the previous year, and exceed by 44,233 the mean of the previous ten years.

In Gujarát the birth-rate was 40·28 against 40·36 in 1911. It ranged from 36·72 in the Ahmedábad Collectorate to 47·82 in Broach, and compared with the preceding year there is a decrease in all the Districts except Surat and Broach. Of the three largest towns in the Registration District, Surat and Broach show a decrease in the birth-rate, and Ahmedabad an increase, as compared with the previous year.

In the Southern Registration District, the birth-rate was 38·58 per mille as against 38·45 last year, and varied from 34·89 in Kánara Collectorate to 41·33 in Belgaum and compared with the preceding year shows an increase of ·13.

In the Western Registration District the recorded birth-rate for the year was 42·27 per mille as against 44·64 last year, and the variations were from 33·66 in Thána Collectorate to 49·03 in West Khándesh Collectorate.

In the Central Registration District the birth-rate was 36·01, and varied from 31·33 in Poona Collectorate to 41·14 in Sholápur.

In Sind the recorded birth-rate was 21·08 per mille of the population against 20·49 in 1911.

In Bombay City 21,207 births were registered against 21,052 in the previous year.

Two prosecutions were instituted by the Health Department of Bombay for failure to notify births in the city, which resulted in conviction and levy of fines.

Births by sexes, Annual Form No. I.

9. There were 355,897 male and 328,993 female children born during the year against 365·680 and 339,410 in 1911. For every 100 females there were 108·18 males. In the previous year the ratio was 107·74.

The proportion of male to female births recorded varies from 102·98 in the Surat Collectorate to 144·42 in Hyderabad District.

Births by years.

10. The following statement shows the number of births recorded in each year since 1902 :—

1902	... 631,393	1906	... 625,486	1910	... 689,701
1903	... 576,949	1907	... 610,533	1911	... 705,090
1904	... 648,594	1908	... 660,201	1912	... 684,890
1905	... 611,173	1909	... 657,685		

Birth-rates in urban and rural population.

11. The birth-rates recorded among the urban and rural populations of the Presidency were 27·97 and 36·10 respectively against 26·89 and 37·47 in 1911. Except in Sholápur, Kánara and Kaira Collectorates, and in Sind, the rural birth-rate exceeded the urban.

Birth-rates in rural registration circles.

12. In sixteen rural circles the birth-rate was above 50 per mille, in sixty-five it was between 40 and 50, in sixty-two it was between 35 and 40, in twenty-three it was between 30 and 35, in twenty-two it was between 20 and 30, and in forty it fell below 20 per mille.

Birth-rate in urban and cantonment circles.

13. Out of 59 towns and six cantonments in the Presidency, seventeen towns recorded birth-rates exceeding 40 per mille, *viz.*, Sholápur (64·73), Dohad (59·19), Dholka (54·99), Borsad (54·89), Gogha (49·36), Karáchi (48·88), Gokák (48·59), Kaira (47·28), Ránebennur (46·84), Jambusar (46·04), Bársi (45·91), Nadiád (44·06), Kapadvanj (43·73), Nasirabad (43·58), Lárkhána (42·81), Athni (42·17), Umarkot (40·80).

Still-born.

14. During the year 1912, 10,328 infants (or 1·51 per cent. of the total) were registered as still-born against 10,096 or 1·43 per cent. in 1911, and of these 5,786 were males and 4,542 females, against 5,637 and 4,459 respectively in 1911. The percentage of still-born to total births varies from 0·26 in Ahmednagar Collectorate to 7·82 in Bombay City.

Deaths.

Number of deaths.

15. Among the native population, in the rural, town and cantonment circles in the Presidency, 683,210 deaths were registered in 1912 as against 555,312 or 127,898 more than in 1911, and of the total deaths registered, 351,264 occurred among males and 331,945 among females, against 287,656 and 267,656 respectively in 1911.

Of these deaths 28,984 or 4·24 per cent. were due to plague as against 100,399 or 18·08 per cent. last year.

Deaths by years.

16. The following statement shows the number of deaths recorded in each year since 1902 :—

1902	... 721,462	1906	... 648,019	1910	... 560,003
1903	... 811,525	1907	... 606,606	1911	... 555,312
1904	... 764,914	1908	... 501,838	1912	... 683,210
1905	... 588,394	1909	... 505,936		

Death-rate.

17. The recorded death-rate was 34·88 per mille against 28·35 in 1911, and a decennial mean of 32·00.

Male and female death-rate.

18. The rate per mille of males dying to males living was 34·48 and of females 35·32. In 1911 these ratios were 28·23 and 28·48 respectively.

For every 100 deaths among females there were 105·82 among males as against 107·47 in the previous year.

These figures vary from 129·36 in Hyderabad Collectorate to 99·08 in Surat Collectorate, while in the Province of Sind the ratio was 123·52 male to every 100 female deaths.

Deaths by Registration Districts.

19. The following statement shows the recorded deaths in the five Registration Districts during the years 1911 and 1912:—

Registration Districts.	1911.	1912.
Western Registration District	114,459	159,972
Central Registration District	122,363	181,252
Southern Registration District	149,471	123,036
Gujarát Registration District	76,904	109,526
Sind Registration District	57,550	70,867

This shows an increase in each case except in the Southern Registration District. The recorded deaths in Bombay City were 38,557.

Deaths by Collectorates.

20. Compared with the previous year there was a decrease in the recorded death-rate only in the Collectorate of Dhárwár, which was the most seriously plague-stricken District during the previous year.

Birth and Death-rates compared by collectorates to columns 6 and 9, Annual Form II.

21. An examination of columns 6 and 9, Annual Form II, shows the death-rate exceeded the birth-rate in the Collectorates of East Khándesh, Násik, Ahmednagar, Poona, Sholápur, Bijápur, Ahmedabad, Karáchi, Hyderabad and Thar and Párkar.

In Bombay City the death and birth-rates were 40·02 and 22·01 respectively. For the whole Presidency the birth-rate exceeded the death-rate by ·09 per 1,000 of population.

Deaths by ages and sexes, Annual Form IV.

22. Deaths by ages are given in Annual Form No. IV. It will be seen there were 297,096 deaths of children under 5 years of age, which according to the census of 1911, gives a death-rate of 107·36 per 1,000 living as compared with 75·30 last year. Children under 5 years of age contributed 43·48 per cent. to the total deaths.

Deaths by caste or class.

23. The deaths by classes in each Ccollectorate are recorded in Annual Form V, Appendix IV.

Infant mortality.

24. The mortality of infants based on the number of registered births was 218·70 per 1,000 against 165·83 during the previous year. The proportions were 225·81 among males and 211·01 among females, as compared with 172·16 and 159·01 respectively.

25. In Bombay City the ratio of infant mortality based on recorded statistics was 451·03.

The following extract from the Annual Report for 1912 of the Executive Health Officer, Bombay Municipality, shows what progress has been made during the year as regards the enquiry into the causes of infant mortality and its amelioration :—

Table II.—Deaths among Infants from Principal Causes by age-periods in 1912 and 1911.

Age-period.	Year.	Small-pox.	Measles.	Malaria.	Ague and remittent fever.	Diarrhœa and dysentery.	Premature birth.	Debility.	Nervous system.	Respiratory system.	All causes.	Percentage of deaths in each age-period to total deaths under 1 year of age.
1 to 30 days.	1912 ...	10	1	...	20	51	218	2,152	347	70	2,937	30·44
	1911 ...	4	1	1	51	45	173	2,086	340	63	2,815	34·66
1 to 6 months	1912 ...	122	17	7	83	258	1	354	902	1,247	3,188	33·04
	1911 ...	39	37	2	93	171	2	224	743	932	2,426	29·87
7 to 12 months	1912 ...	143	64	17	145	591	...	75	320	1,560	3,521	36·50
	1911 ...	55	195	6	97	365	...	54	317	1,369	2,879	35·45
Total ...	1912 ...	275	82	24	248	900	219	2,581	1,569	2,877	9,646	...
	1911 ...	98	233	9	241	581	175	2,364	1,400	2,364	8,120	...

Infant Mortality.

The foregoing table gives the mortality from principal causes in 1912 among infants, arranged under three age-periods of 1—30 days, 1—6 months and 7—12 months. The corresponding figures for 1911 have been inserted for comparison.

From an examination of the figures, it will be found that the mortality from every cause of death was higher in 1912 than in the preceding year—except under measles, whose diminished prevalence in the year under notice explains the comparatively low figure of 82 against 233 in 1911; that the heaviest mortality from small-pox (143), measles (64), malaria (17), ague and remittent fevers (145), diarrhœa and dysentery (591), respiratory diseases (1,560) occurred in the age-period of 7—12 months, while deaths due to the diseases of the nervous system were most numerous in the age-group of 1—6 months, as those due to debility were in the first 30 days; and that out of 219 deaths due to immaturity at birth, 218 occurred in the first month of life and the only other death in the next stage.

The smallest percentage of total infant mortality (30·4) was registered among children 1—30 days old, and the highest (36·5) in the age-period of 7—12 months.

Measures to control infant mortality.

During the year, the efforts of the Health Department to combat causes and conditions contributing to high infant mortality were continued with unabated vigour. More frequent visits to chawls of the poor were paid by the municipal nurses and more homely talks were given. The more enthusiastic of the nurses delivered at intervals lectures in crowded localities to tenants of adjacent chawls on the care and rearing of infants, on the importance of domestic and personal hygiene, on the value of vaccination and kindred subjects.

The following statement tabulates the work of the municipal nurses and midwives in regard to attendance at birth and infant visitations. It is their duty to find out and advise prospective mothers as well as attend on confinements and repeat their visits during and after the lying-in period; to find out as far as possible and warn against the prenatal and post-natal influences adverse to infant life:—

Summary of inquiries and of work of municipal nurses and midwives.	1909.	1910.	1911.	1912.
Total number of births (including still-born registered)	21,645	21,505	23,135	23,186
Percentage of still-births to the total number of births registered ...	8·34	7·28	7·60	7·19
Number verified by the nurses	13,677	12,762	13,578	14,417
Percentage of the number verified to the total	63·1	59·3	58·7	62·1
Do. confinements unattended	18·0	15·2	12·7	13·0
Do. confinements attended by unskilled women	58·3	59·6	60·7	59·6
Do. confinements attended by qualified nurses (including municipal).	11·3	12·0	13·2	13·9
Do. confinements attended by municipal nurses	4·5	5·6	5·5	6·6
Do. children born in hospitals...	12·3	13·2	13·2	13·5
Do. children born in healthy condition	67·8	68·9	74·9	73·7
Do. children fed on breast	64·9	59·8	69·7	66·5
Do. children dying within 30 days	12·3	11·8	11·5	11·8
Do. cases where the mothers left home for work	31·3	27·9	34·4	29·7

If the preceding statement be scrutinized, it will be found that out of the total number of 23,186 births registered (including still-births), 14,417 or 62·1 per cent. were visited by the nurses and midwives of the department. The number verified is higher than in any previous year since infant visitation was started in June 1908.

The proportion of still-births which showed an upward tendency in 1911 declined to 7·19 in the year under review and was the lowest since 1909. This decline may possibly be accounted for by the increasing proportion of births with skilled attendance.

Compared with 1911, a trifling rise is visible in the proportion of births wholly unattended, but is (13·0) lower than in any other year. The percentage of confinements attended by unskilled women (60·7) which had registered a slight increase in 1911, veered back to the figure of 1910 (59·6). The most satisfactory feature of the Table is the continuous and uninterrupted rise it reveals in the proportion of births attended by qualified midwives: from 11·3 in 1909 to 12 in 1910 and from 13·2 in 1911 to 13·9 in the year under notice.

The percentage of births in hospitals, which was steady in the preceding two years (13·2), rose to 13·5 and was higher than in previous years; while the proportion of births attended by municipal midwifes (6·6) was much higher than ever before.

The percentage of children born in a healthy condition (73·7) was smaller than in 1911 but higher than in 1909 or 1910.

Though the percentage of mothers who left home for work declined considerably (29·7) below that in 1911 (34·4), the proportion of children fed on breast (66·5) exhibits no improvement over the figure of the preceding year (69·7). It has, on the contrary, declined to 66·5; concurrently, there has been a slight rise in the proportion of children dying in the first month of life.

Statistics of Ahmedabad.

26. The general death-rate in Ahmedabad city rose from 42·69 to 64·92 per mille, the mean for the last five years being 51·99. Cholera caused 363, plague 5, fever 5,798 and respiratory diseases 3,738 deaths as against nil, 16, 4,121 and 2,566, respectively, last year.

There were 5,007 births recorded or 23·40 per mille of population, the deaths exceeding the births by 41·52 per mille. The deaths registered under one year of age were 4,341, corresponding to a ratio of 866·98 per 1,000 of the total number of registered births.

Deaths by causes.

27. The subjoined table shows the number of deaths in 1912 arranged according to causes and contrasted with the results for 1911, and with the mean of preceding five years:—

	Mean for five years, 1907 to 1911.		1912.		1911.	
	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.
Cholera	9,528	·51	64,505	3·29	5,817	·30
Small-pox	3,747	·20	6,331	·32	4,727	·24
Plague	54,148	2·87	28,984	1·48	100,399	5·13
Fever	242,828	13·00	286,321	14·62	223,027	11·38
Dysentery and diarrhœa.	41,544	2·23	57,089	2·91	31,549	1·61
Respiratory diseases.	55,504	2·97	70,712	3·61	51,470	2·63
Injuries	7,055	·38	7,175	·37	7,452	·38
Other causes ...	131,590	7·03	162,143	8·28	130,871	6.68
All causes ...	545,939	29·20	683,210	34·88	555,312	28·35

For comments on the causes of deaths, *vide* Section VI.

28. The recorded death-rates among urban and rural populations and in the six cantonments in British territory are given in Table VI, Appendix IV. The death-rates for the seven cantonments in Foreign territory will be found in paragraph 32.

The urban and rural death-rates were 41·48 and 33·80 per mille as against 36·89 and 26·96 in 1911.

In eleven Collectorates the rural death-rates were in excess of the urban.

Death-rates in rural circles.

29. In sixty-four rural registration circles the mortality rose above 40 per mille, in seventy-two it was between 30 and 40, in twenty-three it was between 25 and 30, in twenty-eight between 20 and 25 whilst in fourty-one, all in Sind, the record was below 20 per mille.

In sixty-four rural circles death-rates of over 40 per mille were recorded, and of these thirteen were in East Khándesh, six in West Khándesh, eight in Násik, seven in Ahmednagar, four in Poona, two in Sholápur, three in Sátára, five in Bijápur, two in Belgaum, two in Dhárwár, two in Kánara, four in Broach, one in Kaira and five in Ahmedabad, the highest rate 67·46 being recorded in Muddebihál Táluka of Bijápur District.

30. The following table shows that in fourteen town circles, out of a total of fifty-nine, the recorded death-rates exceeded 50 per mille :—

Town Circles.	Death Ratio.	Town Circles.	Death Ratio.
Gogo	76·74	Kapadvanj	55·46
Dholka	73·10	Málegon	53·47
Wái	72·94	Nasirabad	53·09
Sholápur	66·29	Nadiád	51·80
Ahmedabad	64·92	Poona	51·80
Umarkot	63·35	Dohad	50·19
Pandharpur	58·46	Bársi	50·17

Death-rate in cantonments in British territory.

31. During the year under report, the death-rates in cantonments from all causes were below normal, the highest figures being reported from Poona and Kirkee, namely 31·17 and 48·67 per mille respectively.

Statistics of cantonments in quasi-foreign territory.

32. The following table shows the vital statistics of the civil population of those cantonments which are situated in quasi-foreign territory. The total number of births registered in them during the year 1912 was 2,440 against 2,339 in 1911, the birth-rate being 24·28 per mille as against 23·27 in 1911. There were 4,060 deaths, giving a ratio of 40·40 per mille against 3,407 and a ratio of 30·91 in 1911.

Statement showing the names of Cantonments with population and deaths by diseases for the year 1912.

Cantonments.	Population according to Census of 1911.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from								Ratio of deaths per 1,000 of population.							
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.
Aden. Municipal limits.	40,684	6⅞	602	861	21·16	...	9	1	154	560	...	12	721	1,457	...	·22	·02	3·79	13·76	...	·29	17·72	35·81
Aden. Purely civil population of cantonments.	307	7⅛	42	10	32·57	...	...	...	1	4	...	...	9	14	...	...	...	3·26	13·03	...	...	29·32	45·60
Baroda	3,478	1	3,478	66	18·98	1	3	...	16	5	16	...	45	86	0·29	0·86	...	4·60	14·38	4·60	...	12·94	24·73
Deesa	7,129	5	1,713·20	163	22·66	...	2	...	14	23	..	...	179	218	...	·28	...	1·96	3·23	...	...	25·11	30·58
Mhow	23,360	6·5	3,440	151	6·75	1	3	80	191	...	...	...	957	1,232	0·04	0·13	3·58	8·54	...	...	...	42·80	55·10
Nasirabad	16,144	8·58	1,881	334	51·66	...	24	...	288	71	27	1	246	657	...	1·49	...	17·84	4·40	1·67	·06	15·24	40·69
Neemuch	9,786	4·52	2,165	342	34·95	38	6	...	124	14	26	1	180	389	3·88	·61	...	12·67	1·43	2·66	·10	18·39	39·75
Rájkot	201	·56	359	13	65·17	...	...	...	2	...	...	...	5	7	...	...	...	9·95	...	...	...	24·88	34·83
Total ...	109,497	100·87	996	2,440	24·28	40	47	81	790	677	69	14	2,342	4,060	·40	·47	·81	7·86	6·74	·69	·14	23·30	40·40

33. The year 1912 must be classed as distinctly unhealthy. The number of deaths recorded has only been exceeded three times during the previous ten years, and, with one exception, increased mortality was reported from each district. With the exception of plague and injuries, the reported deaths under each head exceeded the previous year's figures. Of epidemic diseases, cholera and small-pox were widely prevalent and the recorded total under the former head has only once been exceeded in twenty years.

With the primitive system of registration, which generally prevails, the widespread prevalence of epidemic disease sends up the mortality figures of other diseases, and this may account to some extent for the generally higher death-rate from all other causes. But apart from this factor it is evident that other influences were at work, seeing that nearly 70 per cent. of the increased mortality was recorded as occurring among infants and children under five years of age, a period of life not specially liable to attacks of cholera. Complete statistics are not available showing the reputed cause of this excessive mortality among children, but as the greatest number of deaths at all ages was recorded during the months of May to August, presumably the deaths among children were mainly referable to these months. Cholera attained its height during these months, but the climatic conditions prevailing during these months were such as to favour diseases of childhood, more particularly intestinal disorders, from which the recorded mortality at all ages shows an increase of more than 25,000.

In the Southern Registration District an analysis of the reported causes of death from the time of birth up to the age of five years, shows that convulsions, fever, debility, and diarrhœa and dysentery are the chief agents, the first three of which are rather symptomatic than causal, and are probably referable to malaria and intestinal disease.

The monsoon of 1912 broke badly, was of weak penetrating power, and during the month of June precipitation was generally below the average and much in defect in the Deccan.

In July, though irregularly distributed, the total fall was in excess generally, while in August the fall was in defect everywhere except in the Konkan. Irregular rains with long breaks of hot moist weather afford ideal conditions for the breeding of flies which are well known disseminators of diseases contracted from polluted food and drink. The effect on infant and child mortality of unfavourable climatic conditions which prevailed during the monsoon months has been noticed by the Executive Health Officer, Bombay, who reports that mortality among infants from diarrhœal disease in 1912 was the highest for the past five years.

34. Prices of food-grains rose above normal and grain compensation was granted in certain districts. Famine was declared in Panch Maháls District and a District Medical Officer was appointed.

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Mortality in 1912.

35. In Annual Form VII are shown the deaths from cholera for each District by months, the number of registration circles affected, and the number of villages in which the disease was reported to have occurred.

Deaths by Collectorates.

36. During the year 1912 there were 64,505 deaths recorded as due to cholera contrasted with 5,817 in 1911. A reference to Annual Form No. VII will show that all the Collectorates with the exception of Broach were affected more or less by cholera. The extent of the epidemic is shown in the fact that out of 285 registration circles in the affected Collectorates 260 returned deaths from cholera. Yet although so widespread, the disease, in its greatest intensity, was confined to the following 15 Collectorates in which more than 1,000 deaths were recorded:—East Khándesh (7,202); West Khándesh (3,615); Násik (4,672); Thána (1,356); Kolába (1,642); Bombay City (1,779); Ahmednagar (8,339); Poona (7,588); Sholápur (3,268); Sátára (6,179); Belgaum (4,522); Dhárwár (3,617); Bijápur (1,686); Karáchi (1,519); and Hyderabad (3,229).

Of the 228 rural circles or tálukas in the Presidency 207 were affected by cholera during the year under report and 58,625 deaths were reported from them. The epidemic was chiefly prevalent in the following rural circles in which more than 600 deaths were recorded in each:—Yával (735), Amalner (680), Bhusával (656), Jámner (1,260), all of the East Khándesh Collectorate; Dhulia (947) and Sakri (740), of the West Khándesh Collectorate; Málegaon (627), Báglán (795) and Kalvan (963), all of Násik Collectorate; Ahmednagar (1,005), Jámkhed (818), Párner (1,461), Shrigonda (606), Nevása (698), Sangamner (689), Shevgaon (958), all of Ahmednagar Collectorate; Junnar (948), Khed (1,204), Sirur (617), Purandhar (820), Bhimthadi (902), Haveli (1,714), all of Poona Collectorate; Sholápur (701) and Karmála (613), both of Sholápur Collectorate; Sátára (793), Karád (634), Khatáv (658), Mán (661), all of Sátára Collectorate; Sampgaon (1,228), of Belgaum Collectorate; Kod (637), Hángal (626), of Dhárwár Collectorate; Hyderabad (631).

Deaths between 300 and 600 were recorded in 45 tálukas, between 100 and 300 in 42, while in the rest the mortality was below 100.

Forty-eight towns reported deaths from cholera. The highest mortality excluding Bombay City (1,779) occurred in Poona (420); Ahmedabad (363); Sholápur (281); Násik (229); Kapadvanj (165) of Kaira Collectorate; Nagar (164); Karáchi (156); Pandharpur (151); Wái (150); Belgaum (140); Nasirabad (139) of East Khándesh; Málegaon (149) of Násik Collectorate; Karád (116) of Sátára Collectorate, while in the remaining 34 towns affected by the disease the incidence was light.

All the cantonments in British territory, *i. e.*, six were affected by cholera. The greatest number of deaths (43) was reported from Poona Cantonment.

The disease was of widespread distribution, attacking 20 per cent. or 4,972 out of 25,188 villages in the whole Presidency. Outbreaks were reported from 493 villages in East Khándesh; from 479 in Ahmednagar; from 462 in Poona; from 438 in Sátára; from 424 in Hyderabad Collectorate; from 348 in Belgaum, and from 336 in Dhárwár Collectorate.

Monthly mortality.

37. A few sporadic cases of cholera occurred during January, February and March. In April the number increased considerably, particularly in Dhárwár Collectorate, Násik and Bombay City. In May the disease assumed the dimensions of a widespread

epidemic, involving the whole Presidency except Gujarát and Sind, the former escaping lightly throughout the year. The mortality steadily increased from June, reached its maximum (19,224 deaths) in July when attacks were reported from every Collectorate in the Presidency except Broach and Panch Maháls, the former enjoying complete immunity throughout the year. From August rapid abatement in virulence was noticed up to the end of September, after which the mortality steadily diminished but persisted in some parts up to the end of the year.

Mortality for twenty years, 1893 to 1912, inclusive.

38. The following table shows the total number of deaths from cholera recorded in the annual reports for the last twenty years :—

1893	... 18,853	1898	... 4,368	1903	... 1,825	1908	... 1,759
1894	... 33,588	1899	... 8,579	1904	... 13,156	1909	... 28,714
1895	... 8,890	1900	...163,889	1905	... 5,396	1910	... 3,694
1896	... 35,404	1901	... 13,600	1906	... 46,119	1911	... 5,817
1897	... 57,109	1902	... 3,229	1907	... 7,656	1912	... 64,505

This record shows that the mortality in 1912 was less than the mortality of 1900 and exceeded that of the year 1897, both of which were famine years.

Cholera-producing causes and preventive measures adopted.

39. The Deputy Sanitary Commissioner, Western Registration District, remarks :—

"The idea that a mild plague year is a severe cholera year again received confirmation during 1912. It is long since cholera was so widespread in its incidence and plague so limited; moreover, the outbreak in April of cholera, which persisted as an epidemic till late in the year, was preceded by a very rapid decline in March of plague, which had been severe at the beginning of the year, but which did not afterwards recrudesce to any extent. Seeing what the principal carriers are of the two diseases, it can only be presumed that meteorological and other conditions were favourable to the breeding and dissemination of flies rather than to the breeding and dissemination of fleas. During the months that cholera was at its worst it certainly was noticeable that flies were unusually abundant at Násik while fleas were not in evidence at all though in the previous year, one in which plague outbreak occurred, they were a pest.

The disease was at its height in July and August, the wettest months of a not particularly wet year, and its incidence was twice or thrice as severe in the Deccan Districts as in the Konkan.

On the occurrence of an outbreak in a village the routine procedure was adopted of sending to the village officers copies of the instructions published by Government for the prevention of the spread of cholera; at the same time the Mámlatdár was advised of the fact in order that he might ascertain personally the extent to which these were being carried out.

The small stock of potassium permanganate tablets at the disposal of the Department was exhausted early in the epidemic, but the reports of the success of its use by Inspectors of Sanitation and Vaccination were so favourable that a circular to Mámlatdárs was sent through Civil Surgeons, asking them to encourage the use of weak permanganate solution as a curative medicine, plentifully available in every táluka and of which it is almost impossible to give an overdose, as the nastiness of its solution increases so rapidly with its strength."

The Deputy Sanitary Commissioner, Central Registration District reports :—

"In Poona a few attacks and deaths occurred during the first three months of the year in Mával Táluka, and by May five tálukas including Haveli were affected. In June the number of deaths suddenly rose from 414 to 2,375, Poona City and most of the surrounding villages contributing numerous cases. Apparently the infection was introduced from Dehu, where a large number of pilgrims are constantly congregating.

In Ahmednagar, where more deaths from this cause occurred than in any other Collectorate, the figures amounting to over 8,000, the first cases appeared in Akola Táluka early in April. The disease was probably introduced from Násik District and infection spread at once to the adjoining tálukas, Sangamner and Párner, thence both east and south through the entire district and continued its ravages long after it had almost disappeared in the other Collectorates.

In Sholápur, no cholera was reported anywhere until the middle of April, when cases began to occur in Pandharpur Town. It did not spread over the whole Collectorate and began to subside in June after the first heavy rain. Owing to the universal prevalence of

the disease throughout Western India the usual A'shádi Fair held at Pandharpur was officially prohibited, bookings to that station being stopped on all railway systems. Nevertheless some 40,000 persons congregated there for the occasion, but owing to the very complete arrangements for checking the spread of the disease very few cases were recorded.

No outbreak of any importance was reported from Sátára District until the end of April, when cholera appeared in Koregaon Táluka, in a month it had practically spread to every corner of the Collectorate, Válva and Pátan Tálukas being the last to be infected. Early in June, the Krishna river was undoubtedly contaminated with the specific micro-organism and at that time the disease was most virulent at Wái and all the villages on its banks.

In order to prevent the dissemmination of the disease as far as possible, pamphlets in vernacular and English were circulated in all the affected areas containing instructions as to how the spread of the complaint might best be checked. They emphasised the importance of seeing that the supply of drinking water was not contaminated and that proper arrangements were made for the disposal of the excreta of persons already suffering from the complaint. It is satisfactory to note that in places where the advice given in these pamphlets was energetically acted upon the epidemics stopped almost immediately.

This year large quantities of permanganate of potash were issued to the Mámlatdárs in the form of one grain tablets, to be distributed to the sufferers as a specific. It was not always well received, the people in many instances being loth to depart from the old mixtures, but there is a general consensus of opinion that wherever it was given a fair trial, it did incalculable good."

The Acting Deputy Sanitary Commissioner, Southern Registration District, regards the outbreak as a continuation of the disease prevalent in Dhárwár District towards the end of the previous year. He writes:—

"On receipt of information of an outbreak of cholera in a village, leaflets containing full instructions to check the spread of cholera printed in Kánarese and Maráthi were sent to the village officers and the Mámlatdár concerned; and the following measures were reported to have been generally adopted in the cholera affected places:—

(*a*) Cleaning and disinfection of wells with permanganate of potash.

(*b*) Villagers advised not to wash their clothes and persons in the vicinity of water-supplies.

(*c*) Cleanliness and removal of refuse.

(*d*) People advised to boil drinking water, to eat cooked vegetables and to avoid fruits."

The Deputy Sanitary Commissioner, Sind Registration District, writes:—

"Cholera first broke out in Sukkur Town on 24th May 1912. The origin of the disease was not traced, the Municipal Secretary of the town attributing the outbreak to excessive heat. It then spread to adjoining tálukas of the district and by the end of June almost all the Districts were infected.

Printed sheets were freely distributed to all local officials, giving instructions chiefly with regard to—

(*a*) General sanitation.

(*b*) Strict watch on drinking water supplies.

(*c*) Frequent treatment of wells with potassium permanganate.

(*d*) Segregation of patients and disinfection of their belongings.

One grain tablets of potassium permanganate, received from the Medical Depôt, Bombay, were sent to local officials for trial in the cholera affected places during the year 1912. The reports received from these officials are in some cases incomplete, and in other cases it would seem that great benefit resulted from the use of the tablets."

Regarding the origin of widespread epidemics of cholera little definite information is available. There is generally a history of importation, but this is a matter of common occurrence almost every year and no epidemic follows. It is interesting to note that, although there are no endemic centres of cholera in the Presidency, the disease appears to be always ready to burst out in epidemic form under certain favourable conditions, among which must be included warmth and moisture.

Such conditions appear to be favoured during years of deficient and irregular rainfall. In dealing with outbreaks of cholera, as also in the adoption of preventive measures, one of the most encouraging features is the generally ready acceptance by the people of potassium permanganate as a disinfectant for all

sources of water supply; and if to this we could only add some simple precautionary measures in the household, the problem of dealing with cholera would be largely solved. In the treatment of this disease, the internal administration of potassium permanganate, either in the form of tablets or in solution appears to be gaining in favour, and although the reports regarding its use only serve to create an impression in its favour, it is hoped that on any future occasion every facility will be given for an extended trial of the remedy.

A more systematic trial of this drug was made in the Southern Registration District than in any other. The Acting Deputy Sanitary Commissioner impressed Inspectors of Sanitation and Vaccination and Vaccinators into service as distributors of permanganate with the result that out of 17,646 cases of cholera reported as occurring between January and September, 805 received treatment with permanganate solution. The crude statistics show a death-rate among the treated of 37 per cent. and among the untreated of 58 per cent. These figures must, of course, be accepted with many reservations. In the first place the distributors were not medical men and mistakes in diagnosis no doubt occurred. Again, cholera as an epidemic disease rapidly loses virulence the longer it continues, and a number of the cases treated would, no doubt, have recovered in any case. This, of course, is a factor which affects the treated as well as the untreated.

Thirdly, the duration of the illness is of importance, for after the first 48 hours, the chances of recovery become greater. As regards this point, it must be noted that by far the largest number of persons were treated within 48 hours of the attack. However, making every allowance for errors in the statistics, the Acting Deputy Sanitary Commissioner is of opinion that the results justify a further and more extensive trial of permanganate of potassium as a curative remedy and he adds a further recommendation that the services of medical officers should be made available for cholera duty.

Quite recently this question of medical aid during epidemic outbreaks has been brought to notice by officials and non-officials in certain villages. It has been pointed out that the services of a veterinary officer can always be obtained in case of epizootic outbreaks among cattle, and wonder is expressed why medical officers are not equally available at the time of epidemic outbreaks. Medical officers of the right stamp could work wonders in epidemic-stricken villages. At present our efforts are for the most part, confined to the distribution of leaflets among a people bereft of any glimmering of self-help, and what we want is more personal demonstration of methods, curative and preventive.

SMALL-POX.

Deaths from small-pox.

40. During the year under report the recorded deaths under the heading small-pox numbered 6,331, of which 3,295 were males and 3,036 females, as compared with 4,727 in 1911 and 4,901 the decennial mean.

The number of deaths registered from small-pox since 1901 is given below :—

Year.	Number of deaths from small-pox.	Year.	Number of deaths from small-pox.
1901	5,340	1907	1,862
1902	2,189	1908	2,526
1903	2,752	1909	5,019
1904	4,289	1910	4,600
1905	16,985	1911	4,727
1906	4,063	1912	6,331
Total ...	35,618	Total ..	25,065
Mean ...	5,936	Mean ...	4,177

Deaths by Registration Districts and Collectorates.

41. Deaths from small-pox by months and Collectorates are shown in Annual Form No. VIII.

During the last ten years, except in the year 1905, mortality from small-pox was never so high as in the year under report. All the Collectorates in the Presidency were more or less affected. Karáchi, Hyderabad, Thar and Párkar, Surat, Dhárwár, Ratnágiri, Sholápur, Násik and the City of Bombay suffered most. The number of registration circles affected was 244 against 194 in 1911, while the number of towns and villages affected rose to 1,272 compared with 913 in the previous year.

The ratio per 1,000 of population for the Presidency amounted to ·32 as compared with ·24 in the previous year and ·20 the quinquennial mean.

A large proportion of the deaths from small-pox in Sholápur, Dhárwár, Surat and Hyderabad occurred among the urban population. In Bombay City there were 966 deaths, equal to a death-rate of 1 per mille of population, against 443 in 1911. Other towns severely affected were Umarkot (8·36), Gogha (2·71), Belgaum (1·37), Alibág (1·79) and Málegaon (8·09).

The Deputy Sanitary Commissioner, Sind Registration District, reports :—

"The contrast between the incidence of the disease in the towns where compulsory vaccination is in force (2 per cent.) as compared with the corresponding figure (13 per cent.) for the towns where vaccination is voluntary is striking and is in correlation with the efficiency of vaccination, as far as is shown by the proportion 35 and 20 respectively of annual primary vaccinations per mille of population.

"Enquiries with regard to the fatal cases as they occurred in Hyderabad were carried out by the Municipal staff and the case mortality among the young and unvaccinated was shown to be overwhelming. That Municipality has accordingly at last realized the necessity of compulsory vaccination and has passed a resolution to have the Act applied to the town.

"For Shikárpur the Act is almost equally necessary and the Municipality is also showing signs of awakening to the amount of preventible sickness small-pox has caused in the town."

The Acting Deputy Sanitary Commissioner, Southern Registration District, conducted an enquiry regarding an outbreak of small-pox in Dhárwár Town, which began towards the end of November of the previous year and continued during the first two months of the year under report, and which caused a recorded mortality of 113.

The histories of 495 cases were carefully investigated, of which 90 proved fatal. Of males there were 263 cases, with 46 deaths and of females 232, with 44 deaths. As regards the state of vaccination in the 495 cases, 142 cases with 12 deaths occurred among the vaccinated and 353 cases with 78 deaths among the unvaccinated. The mortality among the vaccinated being about 8·5 per cent. as compared with 22 per cent. among the unvaccinated. The contrast would have been still greater, had the degree of protection among the vaccinated been higher. In infancy and early childhood the protection is good, for of infants and children under five years there were 9 cases with 1 death among the vaccinated and 174 cases with 61 deaths among the unvaccinated, showing a case mortality of 11 and 35 per cent., respectively. With increasing years, protection diminishes and as comparatively few revaccinations are done, the percentage of mortality among the two classes becomes more nearly equal. From five to ten years the case mortality was 8·7 per cent. for the vaccinated and 10·5 for the unvaccinated, and after ten years of age, the figures were 8 and 7·3 per cent. respectively.

Deaths by age.

42. Of the total number of deaths 26 per cent. occurred among children under one year of age, 40 per cent. among children one to ten, and the remaining 34 per cent. among persons over ten years of age.

Preventive measures adopted.

43. The preventive measures were those usually adopted by the Sanitary Department, *viz.*, to obtain early information of the outbreak, to encourage vaccination and revaccination, and to supplement the existing staff of vaccinators whenever it was considered desirable.

Fever.

Deaths from fever.

44. During the year 1912, 286,321 deaths (146,698 males and 139,623 females) were recorded as due to fevers against 223,027 in the previous year and 251,604 the mean of the preceding ten years.

The number of deaths recorded from fevers since 1901 is as follows :—

Year.	Number of deaths from fever.	Year.	Number of deaths from fever.
1901	291,951	1907	260,329
1902	270,845	1908	243,372
1903	259,704	1909	223,888
1904	251,330	1910	263,523
1905	245,373	1911	223,027
1906	274,653	1912	286,321
Total ...	1,593,856	Total ...	1,500,460
Mean ...	265,643	Mean ...	250,077

It will be seen that the fever mortality in 1912 was the highest on record during the last ten years.

Deaths by Registration Districts and Collectorates.

45. Deaths from fever by months and Collectorates are shown in Annual Form No. IX.

The fever death-rate for the Presidency rose from 11·38 in 1911 to 14·62 in the year under report, against a quinquennial mean of 13·00. The increase in mortality, as compared with the figures of the preceding year, is noticeable in all the Collectorates with the exception of Thána, Kolába, Ratnágiri, Dhárwár and Kánara which show a slight decrease. The increase was most conspicuous in all the Districts of Gujarát where it amounted to more than 53 per cent.

The highest ratios per mille of population were recorded in the Collectorates of Ahmedabad (33·78), Broach (25·72), Panch Maháls (20·39), Thar and Párkar (18·89), Lárkhána (18·68), Sholápur (18·34), West Khándesh (17·84), Surat (17·46), Poona (16·63), Thána (16·50) and East Khándesh (16·34), while the lowest were returned from Belgaum (5·32), Dhárwár (7·89) and Bijápur (10·98).

By registration districts, Gujarát recorded the highest ratio of 22·59, Western 16·30, Sind 15·09, Central 14·46 and Southern 8·68.

The ratio for the City of Bombay amounted to 3·66.

Deaths by months.

46. The reported statistics of deaths from fever by months show how untrustworthy these figures are as a record of mortality from fever, meaning malaria. Of the total mortality only about 41 per cent. occurred during the recognized fever months, October to February, while 24 per cent. are referable to the hot-weather months, and 35 per cent. to the rains.

Malarial fevers, preventive measures.

47. During the year under report 30 Sub-Assistant Surgeons, against 27 in 1911, were deputed to carry out anti-malarial operations in the most malarious parts of certain selected Districts as detailed below :—

District.	Táluka or Mahál.	Number of Sub-Assistant Surgeons.	Cases of malaria treated.	Cases of enlarged spleen treated.	Total number of cases treated.
Ahmedabad ...	Daskroi	1	2,809	219	4,615
Kaira	Mátar (Daskoshi Tract) ...	1	6,040	.....	6,040
Panch Mahals ...	Hálol	1	373	.....	373
	Dohad	1	796	.....	796
Surat	Mándvi	1	665	187	1,317
	Párdi	1	82	8	90
Thána	Sháhápur	1	398	.....	620
	Dáhánu	1	399	.....	664
	Bassein	1	418	106	686
West Khándesh ...	Sákri	1	1,494	182	2,088
	Taloda (western portion) ...	1	900	280	2,452
	Taloda (Akráni Mahál) ...	1	262	22	459
	Nandurbár (Western portion)...	1	825	1,557	2,790
	Navápur	2	3,493	2,732	8,060
Poona	Haveli	1	936	.....	936
	Mulshi	1	2,485	.....	2,485
	Mával	1	2,482	.....	2,482
	Ambegaon	1	323	.....	323
Belgaum	Khánápur	1	328	205	1,566
Dhárwár	Kod	1	1,299	.....	1,910
	Kalghatgi	1	914	.....	1,663
Kánara	Above-ghát Tálukas ...	2	Information not available.		
	Below-ghát Tálukás ...	1	Do.		
Hyderabad ...	Badin	1	Do.		
Lárkhána	Mehar	1	Do.		
	Nasirabad	1	Do.		
Sukkur	Páno Akil	1	2,421	.....	2,421
	Ghatki	1			

This year these officers were deputed much earlier than in the previous year, *i. e.*, in August or early in September, and their services were withdrawn in February 1913. Thus they worked for five complete months. They visited every village in their charge at regular intervals, and treated cases of malarial fevers and enlarged spleen, together with other common ailments. They visited schools in their charge and examined children for spleen enlargement; and also pointed out to the villagers the defects of their houses and gave advice on general cleanliness and ventilation. They explained the use of quinine in malaria and the part played by mosquitoes, etc.

The Civil Surgeons are generally of opinion that these measures have done much good to the people and helped to lessen in some degree the incidence of malaria in those parts in which they were conducted, and are in favour of their continuance. It is reported that the people readily come forward for treatment and, from the experience of the last three years, understand the value of quinine, and have gained confidence in western medicine.

The Civil Surgeon, Poona, reports:—

"All the Sub-Assistant Surgeons state that if they were better equipped for treating general diseases, they would be more successful in winning the confidence of the people and this is probably true. It seems to me worthy of consideration that what may be called miniature field hospitals should be established, *i. e.*, a small but good equipment of instruments, appliances and medicines, fitted in well made boxes suitable for transport and yet convenient in use."

The Civil Surgeon, Dhárwár, reports:—

"The increase in the number of cases of diseases other than malaria treated is gratifying. I think it would be desirable to add santonine and sulphur ointment to the equipment, as ascaris lumbricoides and acarus scabiei are common causes of disease."

The Civil Surgeon, Belgaum, reports :—

"Although the number of cases of malaria treated was not very large, I feel sure that the results obtained fully justify the deputation of the Sub-Assistant Surgeon on anti-malarial work."

As regards the quantity of quinine actually used by the people, there is no reliable information available in this office. The most definite information comes from Lárkhána, whence the Civil Surgeon reports :—

"The total quantity of quinine consumed during the year was 148 lbs. in tabloids of 2 grains each.

"Out of the above quantity 88 lbs. were distributed among the Local Board Schools for use by the children; 13 lbs. were supplied on payment to Municipal Boards for distribution among their own schools; 22 lbs. were reserved for the use of school children; and the remaining 25 lbs. were distributed among the district officers and mukhtyárkars for free distribution among the low classes."

The quantity of quinine expended by the six Sub-Assistant Surgeons on special malarial duty in West Khándesh amounted to 19¼ lbs.

Definite details regarding the effect of quinine distribution on the incidence of malaria are not available, but variations in the attendance of school children are quoted as evidence of its efficacy. In this connection the Civil Surgeon, Lárkhána, reports :—

"The practice in this District during the last malarial season has been to give every school boy one 2 grain tablet of quinine four or five days a week. In the northern tálukas of the District including Lárkhána Town itself, the average attendance in the schools (most of them village schools) increased by at least 10 per cent. and boys have been more regular than they usually are in the malarial season.

"In the southern tálukas of the district, the school children have generally been safe from attacks of malaria by virtue of the quinine tablets.

"In the central tálukas, usually the worst infected, and where two Sub-Assistant Surgeons were on special malarial duty, malaria would have been very severe but the distribution of quinine has been very useful to check it."

In Karáchi City a brigade has been specially appointed for the destruction of larvæ in the Civil Lines and Frere Town Quarters. In Broach Town the filling up of the 'Fata Taláo' was completed by the Municipality as a general sanitary measure. In Dhárwár a District Sanitary Association was formed and has issued a pamphlet written by the Civil Surgeon which briefly and simply indicates the cause of malaria, and the lines on which its prevention should proceed.

Besides these, minor works of draining or filling in hollows in or near the towns, the use of kerosene oil, the removal of weeds from the surface of streams and tanks, combined with general cleanliness and sanitation were carried out in some of the municipal and dispensary towns by small establishments entertained for the purpose.

At the instance of Government the Deputy Sanitary Commissioner Western Registration District, undertook, during the months of September October and November, a survey of certain features of malaria in the Island of Sálsette, a report on which has already been submitted to Government. He reports :—

"The spleen rate was generally taken by the Deputy Sanitary Commissioner throughout the touring season in all the villages in which he performed his ordinary inspections. Touring was mostly done in Thána District. The main fact made clear by this practice of recording the spleen rate is the marked tendency of malaria to be prevalent near hills especially when there is a rank growth of trees and grass together, and its tendency to be absent near the sea-coast, even in places whose low-lying and marshy condition seemed to present the classic features of a malarious locality, so long as no hills are near."

A question deserving of consideration in connection with the deputation of Sub-Assistant Surgeons on malaria duty, is the extent of the area allotted to each officer.

In Dhárwár District the majority of villages were visited only three times or less between September 1912 and January 1913. In Ahmedabad

District the Sub-Assistant Surgeon had 60 villages in his charge, which he could only possibly visit at infrequent intervals. The Sub-Assistant Surgeon deputed to Mándvi Táluka of Surat District in his report states "that to effect any good a medical man must work among the Kalipuraj people for days continuously to overcome their prejudices against the use of drugs."

There can be no doubt that, if these peripatetic doctors are to do any effective work, not only in curative but, what is of still greater importance, in preventive medicine, their charges must be of such an area as will allow of a visit to each village or group of closely situated villages twice or thrice a month.

Plague.

Deaths from Plague.

48. The recorded deaths from plague during the year 1912 numbered 28,984 (14,557 males and 14,427 females) against 100,399 in the previous year and 108,358 the decennial mean.

The number of deaths recorded from plague since 1901 is as follows :—

Year.	Number of deaths from plague.	Year.	Number of deaths from plague.
1901	128,259	1907	93,609
1902	184,752	1908	27,345
1903	281,269	1909	24,319
1904	223,957	1910	25,043
1905	71,363	1911	100,399
1906	51,525	1912	28,984
Total ...	941,125	Total ...	299,699
Mean ...	156,854	Mean ...	49,950

Deaths by Registration Districts and Collectorates.

49. The ratio for the whole Presidency was 1·48 per 1,000 of population against 5·13 in the previous year and 2·87 the mean of previous five years. All the Collectorates in Gujarát and Sind, with the exception of Surat and Karáchi, respectively, were practically free from the disease. Bijápur was the District most seriously affected, where 11,114 deaths, equal to a ratio of 12·88 per mille, were recorded against 10,145 in 1911. Other Collectorates severely affected were Belgaum (3·54 per 1,000 population), Dhárwár (2·52), Karáchi (2·15), Sátára (2·34), City of Bombay (1·78), Násik (1·54) and East Khándesh (1·45) while in the remaining Collectorates the death-rate from plague was below 1 per 1,000 population.

The Districts, seriously affected during the preceding year, enjoyed comparative immunity in the year under report, *e. g.*, Dhárwár reported 2,585 deaths against 38,523, Belgaum 3,335 against 12,758, Sholápur 652 against 7,033 and Násik 1,390 against 5,822. Bijápur was the only exception.

Of 293 Registration Circles 160 were affected against 196 in 1911, while the number of towns and villages affected fell from 2,668 in the previous year to 1,492 in the year under report.

Among towns which furnished the highest mortality were Jalgaon (7·21), Málegaon (11·36), Panvel (6·33), Kirkee Cantonment (13·75), Sátára (7·83), Wái (24·00), Belgaum (5·85), Hubli (6·59), Gadag (12·62), Bágalkot (8·56) and Karáchi (7·56).

Death by months.

50. The fall in plague mortality noticed in November of the previous year continued to the end of June in 1912, when the lowest number of deaths (222) was recorded. There was a rise from July to October in which month there were 2,731 deaths. The mortality again fell towards the close of the year, the number of deaths registered in December being 1,372 as contrasted with 8,837 in the corresponding month of the former year.

Plague preventive measures.

51. Inoculation was the chief measure relied upon for the prevention of plague. Twelve temporary Assistant Surgeons were engaged in this work, while in addition inoculation was practised by private practitioners and by medical officers in charge of civil hospitals and dispensaries.

The total number of persons inoculated during the year under report was 73,895 compared with 93,655 during the previous year, and of these 72,743 belonged to British Territory and 1,152 to Native States.

By Districts the numbers of operations were 24,033 in Bijápur, 15,202 in Poona, 12,479 in Dhárwár, 4,259 in Karáchi, 3,366 in Sátára, 2,764 in Belgaum, 1,111 in Surat, 1,107 in Thána, 537 in Sholápur, 352 in Kánara, and less than 200 each in other Districts. In Native States, 444 operations were performed in Savanur.

More than one-half of the total inoculations were performed in the following cities and towns: Bombay (6,886), Karáchi (4,259), Poona (3,071), Poona Cantonment (8,768), Hubli (2,578), Gadag (6,015), Ilkal (3,010), Guledgud (2,140), Kirkee (2,408).

Deaths among the inoculated.

52. One hundred and fifty-two plague cases were reported among persons who had been inoculated, of which 56 proved fatal as compared with 81 cases and 38 deaths in the previous year. Of this total 40 cases with 24 deaths occurred in Bijápur Collectorate, 34 cases with 12 deaths in Poona, 43 cases with 10 deaths in Dhárwár, 10 cases with 3 deaths in Sátára, 16 cases with 2 deaths in Belgaum, 3 cases with 2 deaths in Surat, 4 cases with 2 deaths in Karáchi and 2 cases with 1 death in Vishalgud State.

Among the fatal cases 20 occurred within the period of incubation of the disease, 3 after 15 days, 6 after 1 month, 1 after 2 months, 1 after 3 months, and 1 after 7 months. No information was received from the Bijápur District.

Dysentery and Diarrhœa.

Deaths from dysentery and diarrhœa.

53. During the year under report 57,039 deaths, of which 29,997 were males and 27,042 females, were ascribed to these causes as compared with 31,549 in the previous year and 50,054 the decennial mean.

The number of deaths from dysentery and diarrhœa since 1901 is given in the following table:—

Year.	Number of deaths from dysentery and diarrhœa.	Year.	Number of deaths from dysentery and diarrhœa.
1901	60,198	1907	53,708
1902	58,682	1908	40,781
1903	55,443	1909	35,039
1904	61,470	1910	46,643
1905	55,488	1911	31,549
1906	61,736	1912	57,039
Total ...	353,017	Total ...	264,759
Mean ...	58,836	Mean ...	44,126

Deaths by Registration Districts and Collectorates.

54. Deaths from these causes by months and Collectorates are given in Annual Form No. IX.

The death-rate per 1,000 of population for the whole Presidency was 2·91 against 1·61 in the preceding year, and 2·23, the mean of the previous five years. In all the Collectorates the mortality recorded from these causes was higher when compared with the previous year. The increase was most marked in East and West Khándesh, Násik, Ahmednagar, Poona, Sholápur, Sátára, Kaira and Ahmedabad.

The Deputy Sanitary Commissioner, Central Registration District, remarks:—

"There have been twice as many deaths from diarrhœa and dysentery during the year under report compared with the previous twelve months, when the figures were somewhat below average. The increase was most marked in Poona District. It is a matter of experience that these diseases are always much more in evidence in years when cholera is prevalent, probably the same causes favour the development of all three, undoubtedly the absence of rain influences them to a great extent."

The Deputy Sanitary Commissioner, Southern Registration District, observes:—

"In the dry tálukas these diseases are more prevalent than in the wet tálukas, for instance in the wet táluka Khánápur of the Belgaum District, the mille ratio was 2·50, while in the dry Athni Táluka the ratio was 5·85; again in the wet Belgaum Town Circle the mille ratio was 2·03, while in the dry Athni Town Circle the ratio was 6·64."

Deaths by months.

55. These diseases were, as usual, most prevalent in the rainy months of July, August and September, while their incidence was less felt in the cold months of January, February and March.

The meteorological conditions of the year, as favouring the development of intestinal disorders, more especially among infants and children, has been commented upon in a previous paragraph.

Injuries.

Deaths from Injuries.

56. There were 7,175 deaths due to injuries, of which 4,036 were males and 3,139 females. The figures for the previous year were 7,452 and the mean of the preceding ten years was 6,915.

The number of deaths recorded under the heading Injuries since 1901 is given below:—

Year.	Number of deaths from injuries.	Year.	Number of deaths from injuries.
1901	7,092	1907	6,799
1902	7,434	1908	7,109
1903	6,693	1909	7,029
1904	6,333	1910	6,885
1905	6,586	1911	7,452
1906	6,830	1912	7,175
Total ...	40,968	Total ...	42,449
Mean ...	6,828	Mean ...	7,075

Deaths from Injuries in 1912 and 1911 by sexes.

57. The deaths by sexes arranged under the various heads classed as Injuries, and compared with those of the previous year, are given in the following table:—

Causes.	1912.			1911.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,312	1,622	2,934	1,248	1,666	2,914
Poisoning	110	50	160	108	42	150
Hanging	166	81	247	122	69	191
Wounding	636	364	1,000	626	321	947
Wild beasts	28	11	39	34	13	47
Snake-bite	728	456	1,184	957	589	1,546
Railway accidents	62	17	79	53	11	64
Other causes	994	538	1,532	1,022	571	1,593
Total ...	4,036	3,139	7,175	4,170	3,282	7,452

Deaths from snake-bite.

58. There was a decrease of 362 in the deaths caused by snake-bite. The decrease is most marked in the districts of Hyderabad, Ahmedabad and Kaira which reported 55, 56 and 46 deaths against 116, 104 and 109 respectively in the previous year. Deaths from this cause were reported from every district, the highest number occurring in Ratnágiri (262) and Thána (123), and the lowest in Upper Sind Frontier (8) and Bombay City (3).

Deaths from drowning.

59. Of the total mortality from injuries 41 per cent. was due to drowning, 51 per cent. of these were accidents at wells, and 63 per cent. of these victims were females.

Suicidal deaths.

60. There were 580 suicidal deaths—327 males and 253 females—against 535 in the previous year. The majority of suicidal deaths were the result of drowning or hanging.

Respiratory Diseases.

Deaths from respiratory diseases.

61. There were 70,712 deaths (36,715 males and 33,997 females) registered under the heading respiratory diseases as compared with 51,470 in 1911 and 57,098, the mean of the preceding ten years.

The number of deaths registered under this heading since 1902 is as follows:—

Year.	Number of deaths from respiratory diseases.	Year.	Number of deaths from respiratory diseases.
1902	59,379	1907	58,068
1903	59,349	1908	54,671
1904	59,579	1909	53,433
1905	54,537	1910	59,880
1906	60,615	1911	51,470
		1912	70,712
Total ...	293,459	Total ...	348,234
Mean ...	58,692	Mean ...	58,039

It will be seen that the year under report shows the highest recorded mortality from this cause during the last ten years.

Deaths by Registration Districts and Collectorates.

62. Deaths from these diseases, by months and Collectorates, are set forth in Annual Form No. XI.

The ratio per mille of population of deaths from respiratory diseases amounted to 3·61 against 2·63 in the previous year, and 2·97, the mean of the previous five years. With the exception of Sukkur, all the Collectorates in the Presidency, especially East Khándesh, Násik, Ahmednagar and Ahmedabad, returned a higher number of deaths as compared with the previous year. By Registration Districts, Gujarát recorded the highest ratio of 7·13 per mille of population and Sind the lowest (·49).

Deaths from respiratory Diseases, by Districts and towns, are shown in Annual Form No. VI, column 9. The mortality per 1,000 of population in rural areas amounted to 2·78 as contrasted with 8·72, the urban ratio. The highest ratios were recorded in Ahmedabad (17·47), Borsad (16·02), Nadiád (13·48), Broach (13·06), Bombay (12·27), Kaira (12·20), Gogha (11·49) and Kapadvanj (10·97); while in the town of Jacobabad not a single death was registered from these diseases.

Deaths by months.

63. A study of the monthly distribution of deaths from these diseases, as set forth in Annual Form No. XI, leads irresistibly to the conclusion that a large proportion of the mortality recorded as due to respiratory diseases was the result of other causes, of which

cholera was probably the chief. On an average of a series of years it can be shown that the percentages of mortality from respiratory diseases, calculated on the recorded statistics, are 55 to 56 for the six months October to March and 45 to 44 for the six months April to September. During the year under report these figures were reversed, the greater part of the mortality being recorded in the six months April to September, the months during which cholera prevailed in epidemic form. Ordinarily June shows the lowest mortality from respiratory diseases; whereas this year the minimum was recorded in February, a month during which respiratory diseases are very common, and in this month only of the twelve do the figures for the year under report and for the previous year closely approximate.

Other Causes.

Deaths from 'other causes.'

64. The number of deaths recorded under the heading 'other causes' amounted to 162,143 (83,181 males and 78,962 females) as compared with 130,871 in 1911 and 135,736 the decennial mean.

The number of deaths registered under this head since 1901 is as follows :—

Year.	Number of deaths from other causes.	Year.	Number of deaths from other causes.
1901	179,694	1907	124,575
1902	134,952	1908	124,275
1903	144,510	1909	128,495
1904	144,800	1910	149,735
1905	132,666	1911	130,871
1906	142,478	1912	162,143
Total ...	879,100	Total ...	820,094
Mean ...	146,517	Mean ...	136,682

Deaths by Registration Districts and Collectorates.

65. The ratio per 1,000 of population of deaths from 'other causes' was 8·28 against 6·68 in the previous year. In the case of individual Collectorates the ratio varied from ·26 in Thar and Párkar to 15·85 in East Khándesh. As compared with the rest of the Presidency all the Collectorates in the Southern Registration District and those in the Western, with the exception of Thána and Kolába, recorded high rates.

The percentage of deaths recorded from 'other causes' to total deaths for the Presidency was 23·73, with percentages varying from 36·01 in the Southern Registration District to 6·99 in Sind.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

66. This section has been omitted from this report and appears separately.

SECTION VIII.

SANITARY WORKS—MILITARY.

67. No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

68. During the year 1911-1912, the number of city and town Municipalities in the mofussil remained unchanged, being 157 in all with a population of 2,354,932 souls.

The total income of these Municipalities amounted to Rs. 1,16,36,120-3-6 of which a sum of Rs. 32,15,211-13-5 was expended on "public health" improvements. The incidence of taxation and income per head of population have increased from Rs. 2-1-10 to Rs. 2-6-4 and from Rs. 3-2-9 to Rs. 3-9-1 respectively. Karáchi has the highest incidence of taxation (Rs. 9-7-11) and Ashta in the Sátára Collectorate, the lowest Rs. (0-3-2). The number of notified areas during the year was 14. Their total income including opening balances was Rs. 74,746 and the expenditure amounted to Rs. 40,647. The incidence of taxation per head of population was Rs. 0-4-10 and of income was Rs. 0-5-3. Besides these there were 6 other notified areas in the Thána District, the reason for their creation being to exercise control over building operations. No taxes were levied within their limits.

The closer attention paid to sanitation under the stimulus of Government grants is shown by the increase of Rs. 9,46,000 under "public health" expenditure; and many improvements in water-supply and drainage are being carried out. Details of these works are shown in Appendix I, and it will be seen that 11 new projects were sanctioned by the Sanitary Board, and 35 such works are either in progress or under investigation in the Presidency.

69. There were 25 District Local Boards and 212 Táluka Local Boards The total population of the area administered by the Local Boards was 17,927,582 and the income of these Boards during the year ending 31st March 1912 amounted to Rs. 71,77,471-15-1, out of which Rs. 3,90,378-10-0 were expended on water-supplies and drainage, while a sum of Rs. 14,496-5-3 was spent on other works of improvement. The total expenditure amounted to Rs. 73,62,818-10-10 against 63½ lákhs in the preceding year.

During the year 1912 Government sanctioned certain allotments from the Provincial Funds as well as from the grant of Rs. 7 lákhs made by the Government of India. The Provincial grants were made for carrying out improvements exclusively to village water-supplies, while the allotment made by the Government of India has been mainly devoted to the improvement of water-supplies, village sanitation, the proper equipment and maintenance of dispensaries and the up-keep of roads and bridges.

The following statement shows the distribution of these allotments and the expenditure met from them :—

Divisions.	Districts.	Provincial Funds.		Government of India grant.		Remarks made by District Officers.
		Grants made from Provincial Funds.	Expenditure.	Grants made from allotments sanctioned by the Government of India.	Expenditure.	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Northern Division.	Ahmedabad ...	5,000 0 0	47,366 0 6	40,000 0 0	10,105 0 0	The surplus was made available from Local Funds and public contributions.
	Kaira ...	1,600 0 0	.....	30,000 0 0	1,86,000 0 0	The grant was not drawn before 31st December 1912, as the works were not completed at that time.
	Panch Mahâls ...	1,500 0 0	.....	35,000 0 0	28,810 0 0	No detailed account is kept.
	Broach ...	5,000 0 0	5,000 0 0	27,000 0 0	27,000 0 0	
	Surat ...	2,000 0 0	1,267 7 10	25,000 0 0	25,376 0 0	The balance will be utilized before 31st March 1913.
	Thâna ...	5,000 0 0	1,492 4 5	25,000 0 0	.....	Details are not available. The grant was credited to the General Accounts.
	East Khândesh ...	6,500 0 0*	5,092 14 8	41,000 0 0	21,237 0 0	* This includes the special grant of Rs. 4,000 sanctioned in Government Resolution, Revenue Department, No. 3975, dated 24th April 1912.
	West Khândesh ...	4,400 0 0	1,528 2 9	29,200 0 0	6,628 3 8	
	Nâsik ...	2,500 0 0	25 0 0	29,000 0 0	10,145 0 0	The works will all be undertaken during the next two months and completed.
Central Division.	Ahmednagar ...	2,500 0 0	2,500 0 0	29,200 0 0	25,804 0 0	
	Poona ...	2,500 0 0	.....	26,700 0 0	10,759 1 4	
	Sâtâra ...	2,500 0 0	364 0 0	30,000 0 0	3,505 0 0	The Prânt Officers have been directed to utilize the whole allotment before the end of March 1913.
	Sholâpur ...	9,000 0 0	3,904 0 0	22,800 0 0	11,163 0 0	
Southern Division.	Belgaum ...	2,500 0 0	2,500 0 0	30,000 0 0	30,000 0 0	
	Bijâpur ...	1,500 0 0	1,500 0 0	29,000 0 0	36,206 0 0	The excess of the amount was provided for by Tâluka Local Boards.
	Dhârwâr ...	12,000 0 0†	25,452 0 0	33,000 0 0	38,000 0 0	† This includes the grant of Rs. 10,000 sanctioned by Government Resolution, F. D., No. 1888, dated 24th March 1912.
	Kânara ...	1,000 0 0	.....	15,000 0 0	39,353 0 0	The grants are incorporated among general receipts.
	Kolâba ...	1,500 0 0	1,500 0 0	19,000 0 0	19,000 0 0	No special account of the grant has been maintained.
	Ratnâgiri ...	1,500 0 0	2,188 0 0	25,000 0 0	48,002 0 0	Do. do.
Sind ...	Karâchi ...	1,000 0 0	949 0 0	.....	.....	It is not possible to furnish the statements as the necessary information will not be available until after the close of the current financial year.
	Hyderabad ...	2,120 0 0	641 0 0	.....	.....	
	Sukkur ...	1,932 0 0	1,241 0 0	.....	.....	
	Lârkhâna ...	858 0 0	858 0 0	.....	.....	
	Thar and Pârkar ...	3,943 0 0	3,943 0 0	.....	.....	
	Upper Sind Frontier.	.....	.....	.....	.....	
	Nawâbshah ...	.....	.....	.....	.....	

As to the expenditure met from these grants no precise information is forthcoming under the abovementioned heads, as the allotments made to different Boards were amalgamated with their "General Revenues" and consequently no separate account of them was kept, as will be observed from the column of remarks in the statement given above. The procedure of crediting the grant to General Funds appears to be in agreement with the ruling in Government Resolution, F. D., No. 1388 of 24th March 1908.

When expenditure on the objects for which the grant was made exceeded the allotment the surplus expenditure was made available from local funds and public contributions. In some Districts the expenditure was incurred at the close of the financial year and therefore the figures were comparatively small. In other Districts a large balance was kept in reserve, owing to non-realization of local fund revenues up till 31st December 1912. In the Panch Mahâls Collectorate the District Local Board is extremely poor and the grant was partly used for recurring expenditure in order to make both ends meet.

70. With reference to paragraph 4 of Government Resolution, General Department, No. 6327, dated 28th October 1911, and in compliance with orders issued in paragraph 3 of Government Resolution, General Department, No. 3823, dated 18th June 1912, details are given, as far as available of expenditure met

from the allotment of Rs 8¾ lákhs from the special non-recurring grant made by the Government of India, and also the details of expenditure met from the recurring assignment of Rs. 6½ lákhs from Imperial Revenues and the Provincial grant on Urban Sanitary Works. The following is a summary of the accounts received from Collectors of various Districts:—

Ahmedabad.—The Ahmedabad Municipality was allowed to draw the grant of rupees one lákh for opening out congested areas in the city, but no expenditure was incurred therefrom during the calender year 1912.

Broach.—(*a*) From the allotment of Rs. 35,000, Rs. 34,675 have already been expended up to the end of December 1912 by the Broach Municipality in opening out congested localities in the Fort Parsiwad. Further expenditure is being incurred from the remaining unutilized portion of the grant for the same purpose, and it is expected that the whole amount of the grant will be utilized before the end of the financial year.

(*b*) The allotment of Rs. 25,000 sanctioned for filling up the Fata Talao and improving the sanitary condition of that locality is also expected to be utilized to its full extent before the close of the current financial year. A major portion of the grant was expended up to the 31st December 1912.

Surat.—(*a*) Out of the Government grant of Rs. 50,000 made for sanitary improvement schemes in Surat, a sum of Rs. 20,192-1-4 was expended for land acquisition awards, and the whole amount will be spent before the 31st March 1913, as awards for Rs. 36,133 are already declared by the Land Acquisition Officer and the date of payment of these awards is fixed for the 25th March 1913.

(*b*) Out of the grant of Rs. 10,000 no expenditure was met for sanitary improvement schemes in Bulsár Town, the award being announced in January 1913.

Thána.—(*a*) From the allotment of Rs. 23,290 a sum of Rs. 6,994-2-8 was expended on construction of new roads at Bandra. (*b*) As to the grant of Rs. 40,000 allotted for original works in connection with the development of Salsette as a residential area, a sum of Rs. 26,670 was spent on different works *viz.*, (1) widening the existing roads at Bandra, (2) constructing storm-water drains at Santa Cruz, (3) completing two new roads at Bandra, (4) extension of the Andheri market, (5) widening station approach road at Andheri, (6) improvement of market buildings at Andheri, and (7) fish and meat market at Borivli.

The Special Officer, Salsette Buildings, anticipates that the balance of Rs. 13,330 will be utilized before the end of March 1913.

Ahmednagar.—From the allotment of Rs. 27,500 a sum of Rs. 10,857 was spent for acquisition of land by the Ahmednagar Municipality, while out of the allotment of Rs. 20,900 sanctioned for town improvement of Bhingar, nothing was spent.

Poona.—On the Poona drainage and water-supply works and on the construction of Lonávla water-supply tank Rs. 3,82,328-13-11 and Rs. 4,492-1-1, respectively, were spent up to the end of December 1912.

Sholápur.—Government sanctioned a grant of Rs. 25,000 for improving insanitary areas in the city of Sholápur and a sum of Rs. 31,855 was spent for acquisition of insanitary houses in the Chambharwáda, in the Mangalwar peth, while Rs. 6,855 in addition were spent by the Sholápur Municipality.

Bijápur.—(*a*) The whole amount of Rs. 1,200 was allotted for improving the drains behind the Post Office at Bágalkot; the estimate for this work amounted to Rs. 2,094 and the Municipality has paid the balance of Rs. 894. The work has already been undertaken by the Public Works Department, and was expected to be completed by the end of the financial year.

(*b*) The estimate for the drainage channel to carry off storm-water which floods the town of Guledgud amounts to Rs. 9,299, and a sum of Rs. 4,000

was credited to the Public Works Department. The work has aready been taken in hand by that department, and the sum credited has been spent on the work.

(*c*) The estimate for the work of improving the gutters in Wards I, III, IV and VI in the town of Bijápur, amounted to Rs. 9,680. The execution of the project has been entrusted to the Public Works Department, and it is expected that the sum of Rs. 5,000 already sanctioned will be utilized before the end of the financial year.

Dhárwár.—(*a*) From the Government grant of Rs. 8,000, a sum of Rs. 2,749-3-8 was spent on drainage in the Musalmán quarters of the town of Ránebennur up to November 1912.

(*b*) The allotment of Rs. 23,185 sanctioned for street improvements in Hubli was wholly expended by the Hubli Municipality during the year.

Kánara.—Out of the grant of Rs. 11,000 a sum of Rs 1,931-8-6 was expended on improvements to the sanitary system of Kánara Town.

Kolába.—Proposals have been made for a grant of Rs. 53,000. Out of this Rs. 7,000 are required for opening out congested areas at Alibág, Rs. 8,000 for opening out congested areas at Pen and Rs. 38,000 for certain sanitary improvements at Mátherán.

Thar and Párkar.—The expenditure incurred from the allotment sanctioned for the filling in of the Lambo Tank at Umarkot up to the end of December 1912 was Rs. 101-6-11.

Aden.—The Political Resident states that the expenditure incurred on preliminary investigations for the Aden water-supply scheme during the years 1909-1910, 1910-1911 and 1911-1912 amounts to Rs. 1,45,409-3-9.

Out of the grant of Rs. 6½ lákhs an allotment of Rs. 1,500 was made to the Bombay Sanitary Association while the expenditure of Rs. 58,222 on the purchase of boring tools and plant is sanctioned from the balance of the special non-recurring Imperial grant of Rs. 8¾ lákhs; the details of this expenditure are given in Appendix I.

71. The Bombay Village Sanitation Act, 1889, was in force in 286 villages, being the same as last year.

There are only two Sanitary Boards, one at Chikhli-Samroli in Surat District and the other for three villages of Hosur, Balekop and Kondli in Siddápur Táluka of the Kánara District, which was introduced only last year. The towns of Hungund in Bijápur, Karjat in Kolába and Páchora in the East Khándesh Collectorate were constituted as notified areas. The Sanitary Committees at Aminbhavi, Garag, Alnavar, Shirguppi, Koliwad, Nulvi and Mishrikot in Dhárwár District were abolished and the outstanding balances at the credit of some of these committees were utilized by the Dhárwár District Local Board for sanitary purposes. A grant of Rs. 180 per annum was sanctioned by Government to the proposed Sanitary Committee at Vani in Násik District. The Sanitary Committee at Od in the Kaira Collectorate has decided that the Taláti doing the committee's work, etc., be paid Rs. 2 per mensem as an exceptional case.

The following statement shows the financial position of the Sanitary Committees in various Districts during the year ending 31st December 1912 :—

Districts.	Number of Sanitary Committees.	Income including balances.	Expenditure.	Closing balance.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
East Khándesh	8	24,443 4 7	16,834 12 7	7,698 8 0
West Khándesh	8	11,333 2 4	4,971 8 5	6,361 9 11
Násik	11		Not available.	
Thána	3	7,241 7 4	2,804 5 2	4,437 2 2
Kolába	10	3,275 3 1	2,044 8 9	1,230 10 4
Ahmednagar	14	12,549 0 0	7,241 0 0	5,308 0 0
Poona	2	1,037 15 9	523 14 7	514 1 2
Sholápur	2	1,836 10 0	659 11 6	1,176 14 6
Sátára	10	6,108 14 5	2,907 10 1	3,201 4 4
Ratnágiri	2	4,626 9 4	2,942 15 3	1,683 10 1
Belgaum	9	11,102 7 4	6,725 10 8	4,376 12 8
Dhárwár	11	10,945 4 3	3,335 12 2	7,609 8 1
Bijápur	8	5,478 6 3	2,119 15 1	3,358 7 2
Kánara	3	115 0 0	.....	115 0 0
Surat	9	12,633 13 4	9,809 13 2	2,824 0 2
Broach	16	15,860 10 10	7,228 6 1	8,632 4 9
Kaira	17	16,950 5 8	8,696 6 3	8,253 15 5
Panch Maháls	4	3,890 2 8	3,186 15 3	703 3 5
Ahmedabad	7	5,045 0 0	3,747 0 0	1,298 0 0
Karáchi	27	13,880 0 0	8,088 0 0	5,792 0 0
Hyderabad	21	15,911 8 10	8,547 15 10	7,363 9 0
Thar and Párkar	23	28,779 12 6	10,770 1 2	18,009 11 4
Lárkána	29		Not available.	
Sukkur	13	9,476 9 3	6,038 11 4	3,437 13 11
Upper Sind Frontier	2	3,476 0 9	2,432 6 7	1,043 10 2
Nawábsháh	17	16,152 0 7	10,245 7 4	5,906 9 3

The closing balances of some of the Sanitary Committees in the East Khándesh, Thána, Ahmednagar, Sátára, Belgaum, Dhárwár, Bijápur, Broach, Kaira, Karáchi, Hyderabad, Thar and Párkar, Sukkur and Nawábsháh Collectorates appear to be large, and it is hoped that the revenue authorities will draw the attention of those committees to the advisability of utilizing them for some useful works.

With a view to furnishing the information required by Government Memorandum No. 7077, dated 15th December 1908, a reference was made to all Collectors asking for a detailed account of the work of the Village Sanitary Boards and Committees in their districts, which may be summarised as follows:—

The Prakásha Sanitary Committee in West Khándesh District has spent a large sum on the purchse of a fire engine.

The Sanitary Committee at Dhond in Poona District is inefficient, and a proposal for constituting the village a notified area is under contemplation.

The means of the Sanitary Committees in the Ratnágiri District are too limited to allow of their effecting any real improvements.

In Belgaum District the Sanitary Committee at Murgod carried out special repairs to selected roads. The sources of drinking water-supply were cleaned and treated with permanganate of potash when the town was threatened with cholera. The Nesargi Committee may be regarded as a model one. The drainage is vastly improved. The Committee at Sankeshwar is the best committee in the District. Its charman was reciently granted a reward by the Collector for his excellent management. The chairman of the committee at Telsang was also granted a reward in appreciation of his services.

The Sanitary Committees at Mulgund, Mundargi, Annigeri, Shelwádi and Ron in Dhárwár District have taken action towards providing an adequate

supply of pure and potable water by repairing water-courses, wells and tanks and keeping watchmen where necessary to guard the water-supply.

On account of scarcity of water five pakka wells were bored with success at the expense of the Sanitary Committee at Olpád in Surat District and no difficulty was experienced in obtaining sweet water.

The annual Government grant-in-aid to the village Sanitary Committees in Karáchi District was supplemented by an additional grant of Rs. 273; so Rs. 2,008 were granted during the year. Rs. 1,000 were sanctioned of the Government grant-in-aid on account of village water-supplies; out of this amount, Rs. 663 were sanctioned for sinking wells in the Shahabandar and Kotri Divisions.

The Sanitary Committee at Sámráo in the Thar and Párkar District has begun the work of filling up low-lying spaces and levelling the bazar.

The funds of the Sanitary Committee at Nawábsháh, which has recently been made the headquarters of the District, are deficient owing to the increased demands of the town, and steps are therefore being taken to improve the funds by increasing the popular subscription, and thus to secure increased local funds and Government grant simultaneously.

The Deputy Sanitary Commissioner, Sind Registration District, states:—

"The non-official members as a general rule take no active interest in the sanitation of the town. The inducement that chiefly appeals to the leading residents of a village about to establish a sanitation committee is the fact that street lamps will be provided.

"The expenditure under sanitation represents merely the pay of the sweepers whose chief duty would seem to be the cleansing of the latrines in the houses of the leading residents. Want of funds is the usual explanation of the absence of any attempt at radical sanitary measures, but it is common to find that as much as one-third of the total income is squandered in lighting while essential sanitary needs are neglected or altogether ignored.

"I am of opinion that the great aim of village sanitation—the improvement of the public health (especially as regards such diseases as cholera and diarrhœa) would be effected through the medium of these committees if more control was exercised over their activities.

"For example no village, persistently allowing the ground water from which its wells derive their supply to be polluted by sullage, house latrines, keeping of cattle in the neighbourhood of wells and for want of simple repairs permitting those wells to remain subject to direct pollution, should receive the Government contribution towards its sanitary committee.

"Again the amount spent in lighting should be regulated so as to depend inversely on the more essential sanitary requirements of the town.

"Improvement in water-supply, *i.e.*, checking pollution of the ground water and the more obvious improvements to the wells themselves, is the chief sanitary need of the towns and villages in this province."

72. The number of selected villages in which sanitary inspection books are kept was 1,643 and entries in 253 of these have been made by officers of the Sanitary Department.

73. During the year complete sanitary surveys on a uniform plan were made of 55 towns and villages, inspected by the Deputy Sanitary Commissioners, and there is now on record a considerable amount of valuable information showing the chief sanitary defects in them. Of these 6 were in Western Registration District, 22 in Central, 16 in Southern and 11 in Sind. In the Gujarát Registration District the charge of the office of the Deputy Sanitary Commissioner was held by the Civil Surgeon of Ahmedabad in addition to his own duties and consequently no sanitary inspection of towns or villages was made. The Deputy Sanitary Commissioner, Central Registration District, also

inspected the premises of the Bársi Light Railway Junction with the main line of the Great Indian Peninsula Railway at Bársi Road Station. Copies of these reports were forwarded to the Local Revenue Officers concerned.

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

74. The Office of Sanitary Commissioner was held by Major H. A. Forbes Knapton, I. M. S., from January 1st to the end of the year.

75. During the year the following Collectorates were visited:—Poona, Panch Mahálś, Lárkána, Karáchi, Sátára, Belgaum and Thána. The new premises of the David Sassoon Industrial Reformatory Institution at Mátunga were visitedand a report was submitted to Government.

The Sanitary Commissioner also attended the "All-India Conference" held at Madras in the month of November 1912.

76. The tours of the Deputy Sanitary Commissioners are described in the Report on Vaccination.

T. E. DYSON, M.B., C.M., D.P.H.,
Lieutenant-Colonel, I. M. S.,
Sanitary Commissioner.

Poona,
20th May 1913.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE BOMBAY PRESIDENCY FOR THE YEAR 1912.

The Sanitary Board was constituted as under during the year :—

President.

The Honourable Surgeon-General H. W. Stevenson, I. M. S., J. P., Surgeon-General with the Government of Bombay, from 1st January 1912 to end of the year.

Members.

The Honourable Mr. G. S. Curtis, C.S.I., I. C. S., Commissioner, Central Division.

H. V. R. Kemball, Esq., C.E., F. U. B., Chief Engineer and Joint Secretary to Government, Public Works Department, from 1st January 1912 to 11th October 1912.

H. F. Beale, Esq., M.Inst.C.E., F. U. B., Chief Engineer and Joint Secretary to Government, Public Works Department, from 12th October 1912 to end of the year.

Major. H. A. Forbes Knapton, I. M. S., Acting Sanitary Commissioner for the Government of Bombay.

N. Belvadi, Esq., B.A., L.C.E., M.R.San.I., F. U. B., Sanitary Engineer and Secretary.

Meetings.

2. Three meetings of the Board were held during the year, on the 9th February, 20th September and 4th October 1912. At these meetings, among other matters, schemes for the water-supply of Belgaum, Hubli 3rd stage, Mátherán, Godhra, Nandurbár and further improvements to Sholápur and the sewerage of Dhulia were dealt with. The question of the appointment of a Mechanical Engineer to Government to inspect Pumping Installations in the Presidency was settled.

3. The following projects were sanctioned during the year :—

(1) Igatpuri Water Supply—Rs. 1,12,473.

(2) Sángli Water Supply. (Revised estimate)—Rs. 2,60,927.

(3) Constructing a drain for irrigating land with the Septic Tank effluent at Belgaum—Rs. 1,893.

(4) Dhárwár Water Works—Feeder channel to the Kelgeri Tank from Sadankeri—Rs. 6,643.

(5) Additions and alterations to the Experimental Sewage Installation for Sewage disposal at Poona—Rs. 6,000.

(6) Lonávla and Khandála Water Supply—Rs. 3,67,801.

(7) Karád Water Supply—Rs. 1,81,039.

(8) Bijápur Water Supply. (Revised estimate)—Rs. 6,18,245.

(9) Jalgaon Water Supply—Improvements to the—Rs. 22,74

(10) Ahmednagar Water Supply—Rs. 15,000.

(11) Improving the water supply at Háveri—Rs. 5,138.

Grants-in-aid.

4. Government were pleased to give during the year the grants noted in the accompanying statement for sanitary works in the Presidency.

5. The following works were in progress during the year :—

A.—Water Supply.

(1) *Southern Division.*

(1) *Water supply to the Civil Hospital, Belgaum.*—An auxiliary well together with an additional length of gallery to supplement the supply to the existing pumping well was constructed at a total cost of Rs. 1,383.

(2) *Sángli Water Supply.*—The work was practically completed, the total outlay during the year being Rs. 55,712. A further revision of the estimate was found to be necessary on account of the heavy expenditure on the filtration gallery in the river bed, pump well, engine and boiler house, steel tower tank, etc. The approximate amount of the revised estimate is Rs. 3,02,426.

(3) *Hubli Water Supply.*—All the works in connection with the 2nd stage of the project, *viz.*, increasing the storage capacity of the Unkal Tank, filtration works and new service reservoir at a higher level were completed during the year. The plant will be ready for working when some of the pipe accessories which are expected from England have been received and fitted. The 3rd stage of the project for a supplementary tank sanctioned with the project being considered unsatisfactory, the feasibility of a better site for a tank was considered and the project is under preparation. The work of revising the distribution of the city sanctioned in the 1st stage has not yet been taken in hand.

Owing to Unkal Tank running dry the Municipality put up a boring plant at their own cost to supplement the supply. It has been worked to a depth of 216 feet without yet striking any artesian supply. The total expenditure on the Hubli Water-works during the year was Rs. 2,10,998 and that on boring work Rs. 2,776.

(4) *Dhárwár Water Supply.*—All the works in connection with the scheme were practically completed. In addition the fencing in of the whole of the tank was completed. The work for a feeder channel from the Sadankeri Tank to increase the catchment area of the Kelgeri Tank was completed before the commencement of the monsoon and the feeder channel was found to be of great use. The tank filled to overflowing on the 20th September 1912 as the rainfall during the year was exceptionally good. The total expenditure on the work during the year was Rs. 23,841.

(5) *Ratnágiri Water Supply.*—The work was practically completed, the expenditure during the year being Rs. 547.

(6) *Improving the water supply at Alibág.*—The works have been nearly completed, the expenditure during the year being Rs. 18,695.

(7) *Roha-Ashtami Water Supply.*—The work was practically completed, the expenditure being Rs. 2,353 during the year. The revision of the estimate has been found necessary and is in hand.

(8) *Pen Water Supply.*—The work of repairing the left bank waste weir is in progress and a project for certain other improvements is under contemplation.

(9) *Bijápur Water Supply.*—All the head works including the closing of the dam were completed with the exception of the erection of the pumping machinery, engine and boiler house. The former has not yet arrived. The work of the rising main is in progress. The High Service Reservoir is completed and the town distribution and erection of stand posts and cattle troughs are in progress. The expenditure during the year was Rs. 2,45,401.

(2) *Central Division.*

(1) *Poona Cantonment Water Supply.*—The work of providing 2 steam engines and centrifugal pumps to pump water into the settling tank is still in progress. The expenditure during the year was Rs. 4,31,817. The revised estimate for the work is in hand.

(2) *Poona City Water Supply.*—Cast iron mains of sizes varying from 21″ to 6″ were laid to the extent of 14,776 feet. One settling tank, the inlet channel pumping engine house and out-offices have all been completed. The second settling tank was well in hand and about-half completed. The High Level Service Reservoir and steel tank were in course of erection. The expenditure during the year was Rs. 1,80,180.

(3) *Lonávla Water Supply.*—The work was commenced about the end of the year. The foundations for the dam were taken in hand, also the khalasies' quarters which were in an advanced stage. The work is being carried out by an Assistant Engineer under the direct supervision of the Sanitary Engineer.

(4) *Ahmednagar Water Supply.*—To remove the immediate scarcity of water felt in the higher parts of the town, connections were made to the distribution system at King Gate and the necessary lengths of 6″ and 4″ piping laid. A well was also excavated in the Sina River to supplement the supply from the Wadgaon duct at a cost of Rs. 9,282.

(5) *Násik Water Supply.*—The work of the filtration wells, Jack well, 13″ supply main, steel tank, the weir at Anandwali, Distribution Service Reservoir and cisterns were completed at a cost of Rs. 1,53,501. A revised estimate is under preparation.

(6) *Jalgaon Water Supply.*—The work of excavating a puddle trench to stop leaks, etc., in the Mehuran Tank was carried out at a cost of Rs. 18,832 during the year.

(7) *Dhulia Water Supply.*—Considerable progress on earth work, excavation at waste weir site and raising the dam and masonry work to strengthen the dam was made during the year, the expenditure being Rs. 28,210.

(8) *Pandharpur Water Supply.*—The work was completed during the year and was handed over to the Executive Engineer, Sholápur District, for maintenance and working from 1st October 1912.

(3) Northern Division.

(1) *Surat Water Works.*—A temporary bund was put up by the Municipality across the river Tapti to keep tidal water out at a cost of Rs. 17,255. This proved unsuccessful and the Municipality are now seeking advice from the Sanitary Board. The total expenditure during the year on water works was Rs. 71,471.

(2) *Ahmedabad Water Works.*—The work is in progress and the question of distribution and a comprehensive scheme including all improvements required for the water works for the extended limits is under contemplation. The total expenditure during the year was Rs. 47,989.

(4) Sind.

(1) *Karáchi Water Supply.*—The Water Works Extension work was in progress, as well as the 6 million gallon covered Reservoir and a second and larger conduit from Malir wells to 5 mile Dumlotte, and new Distributing pipes varying from 6″ to 24,″ at a total cost of Rs. 5,08,286.

(2) *Sukkur Water Works.*—Revised plans and estimates prepared by the Executive Engineer, Shikárpur Canals, under instructions by the Sanitary Engineer are being submitted to Government for sanction.

(3) *Hyderabad Water Works.*—A revised estimate amounting to Rs. 4,78,439 has been prepared by the Executive Engineer, Central Hyderabad Canals. Expenditure amounting to Rs. 31,637 was incurred on the Engine and Boiler House, Earth work, Settling Tank, Lining Fort Reservoir, widening Masonry Conduit and the Distribution System. The expenditure incurred by the Municipality on the improvements, &c., amounted to Rs. 1,15,544 during the year.

B.—Drainage.

(1) Southern Division.

(1) *Drainage of the town of Ránebennur.*—A project for improving the drainage of the town was sanctioned at an estimated cost of Rs. 8,088 of which Government gave a free grant of Rs. 8,000. The project provides for converting a lane into a good road and building a masonry gutter along the same. The expenditure during the year was Rs. 2,749.

(2) *Guledgud Drainage.*—The work of cutting drainage channels to carry off rain water was carried out at a cost of Rs. 18.

(3) *Bijápur Drainage.*—The work of draining a part of the Bijápur Town and extending the drainage gutter near Shahapeth was carried out at a cost of Rs. 2,317 during the year under report.

(2) Central Division.

(1) *Poona City Drainage.*—Main sewers with all accessories to the extent of 10,694 feet were constructed during the year bringing the total up to 23,128 feet out of the estimated length of 33,130 feet. 16,723 L. feet of Branch sewers were constructed (with all accessories), bringing the total up to end of the year to 24,923 feet out of the total estimated length of 147,947 feet. The work has hitherto consisted of the deepest and therefore most difficult and costly portion, mostly in very hard rock. The remaining portion of the work, it is anticipated, will be comparatively cheap and easy, since being at higher levels the strata of rock will not so frequently be met with. Work on the rising mains was in a very advanced condition and approaching completion. The pumping plant both at the central and low level pumping stations was in the course of erection and approaching completion. The balancing tank was completed and the chimney constructed to a height of 50 feet. The total expenditure during the year under report was Rs. 4,56,710.

(2) *Pandharpur Drainage.*—Road-side gutters 1,495 feet in length were constructed at a cost of Rs. 2,151 during the year under report.

(3) Northern Division.

(1) *Ahmedabad Drainage.*—The balancing tank has been further improved by the introduction of two sluice valves to the suction pipe and an additional screen in the silt

chamber. The old Astodia Engine was erected as an auxiliary to the pumping plant. New sewers 24″, 8″ and 6″ were laid in certain portions of the town. The Committee of Management has under contemplation the extension of the drainage for the northern portion of the town at a cost of Rs. 6 lákhs. The expenditure was Rs. 3,243 during the year.

(2) *The Sewage Farm.*—Improvements to the farm have been carried out at a cost of Rs. 10,328. The triennial leasing of plots has been consistently followed and the demarcation of one acre plots is under the consideration of the Advisory Committee.

(4) Sind.

(1) *Karáchi Drainage.*—The work of extending the Shone System to the Machi main was completed and private house connections made thereto. The expenditure during the year was Rs. 3,503.

(2) *Hyderabad Drainage.*—Surveys for an underground Drainage Scheme have been carried out. A few surface drains were built at a total cost of Rs. 2,154 during the year under report.

(6) New Works and Improvements under consideration.

Detailed plans and estimates for the following projects were prepared during the year under report and submitted to Government for sanction:—

(1) Mátherán Water Supply (for 1st stage)	...	Rs.	1,57,890
and („ 2nd stage)	...	„	1,87,965
(2) Nandurbár Water Supply ...	...	„	2,18,000
(3) Godhra Water Supply ...	...	„	2,33,053

Complete schemes for the Dhulia Sewerage and Nipáni Water Supply have been worked out. The cost of the former is Rs. 4,00,000, and the scheme will be submitted to Government when the question of financing it has been decided by the Dhulia Municipality. The scheme for Nipáni will be completed finally after certain details regarding the yield tests which were being carried out have been ascertained. The water supply project for Uran and eleven Kharapat villages was completed for submission to Government at a total cost of Rs. 4,01,500 during the year.

Surveys for the water supply of Háveri, Haliyál, Sátára Cantonment filters, Islámpur, Jalgaon, Álandi, Dholka and Kapadvanj were completed and rough projects for Jalgaon and Álandi were prepared. Plans and estimates for the remainder are under preparation. Surveys for the water supply of Rájápur, Khed, Sháháda and the drainage of Chálisgaon and Amalner were in progress. Rough projects for the water supply of Belgaum and of Saundatti and Yellama Hills were nearly completed.

Applications from several Municipalities have been received for advice and practical help which are being dealt with in the order of urgency, &c.

The question of forming two executive districts for the construction of sanitary works is before Government.

7.—Boring Works in Gujarát and other places.

During the year under report three steam and three hand power Calyx Drills were at work at Broach, Viramgám, Khárághoda, Gogha, Sábarmati and Kelva-Máhim for the purpose of investigating water supplies. Much difficulty has been experienced in sinking the deep bore holes, but an expert Boring Engineer has since been obtained and the work should now progress more satisfactorily. The total cost of working these machines was Rs. 36,594. A good and copious supply was met with at Khárághoda which however gradually subsided and stopped on the 17th May 1912 when 178 feet of lining pipes were found choked with sand and clay. Attempts were being made to overcome the difficulty but not with much success. No good artesian supplies were met with at other places except at the Sábarmati Jail well.

Boring machinery costing nearly Rs. 60,000 ordered and expected from England was not received during the year under report.

8.—General.

Experiments in sewage installation at Poona were made during the year by Major Hutchinson, I. M. S., Deputy Sanitary Commissioner on Special Duty, whose report on the subject was laid before the Sanitary Board. Additions and alterations to the installation costing Rs. 6,000 were carried out.

9.—Agricultural and Mechanical Engineers.

The Agricultural Engineer inspected the pumping installations up to November 1912 when the Mechanical Engineer to Government Mr. G. H. Thiselton Dyer, M.A., A.M.I.C.E., newly appointed and attached to the office of the Sanitary Engineer, took charge of the duties from the Agricultural Engineer. The reports submitted by these officers were sent to the Local Bodies concerned for information and necessary action.

10.—Sanitary Engineer.

The Sanitary Engineer toured in the Presidency proper and in Sind inspecting works in progress or under contemplation and giving advice locally as far as practicable on matters where local authorities seemed anxious to effect improvements.

C. MANDY, C.E., M.R.San.I.,
Acting Secretary, Sanitary Board,
Bombay Presidency.

Statement showing Grants-in-aid sanctioned during 1912 for Sanitary Works.

Name of work.	Amount of grant.	Authority of Government Resolution.
	Rs.	
(1) Broach—City Improvements	35,000	Government Resolution, General Department, No. 160 of 11th January 1912.
(2) Sholápur—Improvement of a certain insanitary quarter in the City.	25,000	Government Resolution, General Department, No. 187 of 11th January 1912.
(3) Dholka—Improvement to water supply	600	Government Resolution, General Department, No. 379 of 18th January 1912.
(4) Dhárwár water works	3,321	Government Resolution No. A-1704 of 21st February 1912 (P. W. D.).
(5) Dhulia—Improvements to water supply...	30,000	Government Resolution, General Department, No. 1559 of 7th March 1912.
(6) Ránebennur—Town Improvements ...	1,200	Government Resolution, General Department, No. 1560 of 7th March 1912.
(7) Surat—Town Improvement scheme ...	50,000	Government Resolution, General Department, No. 1590 of 8th March 1912.
Bulsár—Scheme	10,000	
(8) Lonávla water supply	1,60,000	Government Resolution, General Department, No. 1912 of 20th March 1912.
(9) Bándra and Sálsette—Town Improvement Scheme.	23,290	Government Resolution, General Department, No. 1948 of 22nd March 1912.
(10) Poona—City Drainage and water supply.	3,00,000	Government Resolution, General Department, No. 3823 of 18th June 1912.
(11) Bijápur water works	1,92,000	Government Resolution No. A-6260 of 10th July 1912 (P. W. D.).
(12) Háveri—Improvements to water supply	2,600	Government Resolution, General Department, No. 5015 of 31st July 1912.
(13) Pandharpur—Improvements to water works.	3,700	Government Resolution, General Department, No. 5897 of 5th September 1912.
(14) Umarkot—Filling in of the Lambo Tank.	24,117	Government Resolution, General Department, No. 6142 of 18th September 1912.
Total ...	8,60,828	

APPENDIX II (*a*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31ST DECEMBER 1912.

I.—SUMMARY.

The following summary shows the inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the harbour and docks during the year ending 31st December 1912.

1,058 vessels of all sorts with 194,954 crew and passengers were examined as against 1,057 vessels with 205,207 crew and passengers during the preceding year.

The clothing, bedding and other articles of 97,954 members of crews and passengers of outgoing and incoming vessels and of members of crews of vessels lying in the Port were disinfected. Of these 85,022 were Asiatic and African members of crews, third class or deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India and 12,932 were members of crews, passengers and pilgrims who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while lying in the Port.

38 vessels on which cases of infectious diseases had occurred were disinfected and 21 vessels which carried pilgrims to Jeddah were thoroughly cleansed and freed from rats, cockroaches, etc., by means of sulphur dioxide gas generated in a Clayton apparatus. One outward bound pilgrim-ship was fumigated at Karáchi prior to embarkation of pilgrims at that Port and one pilgrim-ship which left early in January was fumigated at Bombay in December 1911. Besides these outgoing pilgrim-ships 8 incoming vessels, 24 outgoing vessels and 1 Royal Indian Marine Ship lying in the harbour were also fumigated. In all 54 vessels of all sorts were fumigated and 38 vessels were disinfected. 80 persons among whom cases of small-pox had occurred were vaccinated. In addition to this number 10,587 outgoing pilgrims were vaccinated by a special vaccinating staff lent by the Municipality under the supervision of the Police Commissioner. Many pilgrims had also been vaccinated in other Provinces and Native States before their departure for Bombay. Including these it is probable that more than 50 per cent. of the departing pilgrims were thus afforded protection from contracting small-pox in the Hedjaz.

II.—OUTGOING VESSELS.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P, dated the 14th June 1899, and No. 2671-P, dated the 2nd October 1902, the medical examination of all vessels, crews and passengers proceeding to ports out of India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling 3rd class who were not provided with berth accommodation, of fourth class and deck passengers and of all Asiatic and African servants who sailed on such vessels were carried out immediately before they left the Port of Bombay.

3. 841 outward bound vessels (including Indian sailing craft) with 78,394 crew and 71,929 passengers or a total of 150,323 persons were inspected as against 874 vessels with 77,812 crew and 81,977 passengers or a total of 159,789 persons during the preceding year.

4. The bedding, boxes and suspected articles of clothing, etc., of 46,251 Asiatic and African members of crews and of 37,421 third, fourth class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the clothing, bedding and other effects of 1,251 members of crews and 99 passengers who sailed in Indian craft for ports out of India were also disinfected. Thus the total number of outward bound crews and passengers whose clothing, bedding, etc., were disinfected comes to 85,022 during the year under report as against 96,379 during the year 1911.

5. A few vessels had cases of infectious diseases among their crews and passengers within 12 days prior to their departure from this port. The Bills of Health granted to these mentioned the illness which had occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of the disease on board at other ports.

III.—INCOMING VESSELS.

6. In accordance with the Rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, *vide* Notification, General Department (Plague), No. 1645-P, dated the 12th March 1900, and Notification, General Department, No. 625, dated the 1st February 1905, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P, dated the 31st March 1900, medical inspection and disinfection of vessels which were actually infected or suspected to be infected were carried out. All pilgrim-ships and all vessels which arrived from East African Ports were also inspected on arrival.

7. 193 incoming vessels of various kinds with crews aggregating 14,022 persons and 29,166 passengers were inspected during the year. Of the 193 vessels inspected 22 were found

to have had cases of infectious diseases on board at the time of arrival or during the voyage. 4 of these vessels were from East African Ports with 341 crew and 1,103 passengers among whom 2 cases of measles and 5 cases of jigger had occurred. The cases of measles were removed to the Arthur Road Hospital and those of jigger to the Gokuldas Tejpal Hospital for treatment. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. The clothing and bedding of the crews were also disinfected. 9 were vessels from Jeddah with 830 crew and 6,520 pilgrims among whom 1 case of plague, 56 cases of small-pox and 6 cases of chicken-pox had occurred. The plague patient died 11 days before arrival at Bombay. Of the 56 cases of small-pox 17 were landed at Perim, 4 were landed at Aden, 1 died during the voyage, 2 were convalescent and 32 were removed to the Arthur Road Hospital at Bombay. 6 cases of chicken-pox were removed to the Arthur Road Hospital for treatment. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations up-country. The vessels were disinfected and were also fumigated by the Clayton apparatus, the bedding and effects of crews being separately disinfected.

IV.—Infectious diseases on vessels arriving and departing and in the harbour and docks.

8. Tabular Statement No. 1 gives the number of cases of infectious diseases which occurred on vessels arriving, departing and in the harbour.

It will be seen that 79 cases occurred on vessels arriving as follows :—3 cases of plague, 59 cases of small-pox, 6 cases of measles, 6 cases of chicken-pox and 5 cases of jigger.

At the inspections of crews and passengers of outgoing vessels 1 case of plague, 1 case of cholera and 3 cases of small-pox were detected.

3 cases of plague, 2 cases of small-pox and 1 case of measles are reported to have been landed at Aden and Perim from ships which had left Bombay. Of the plague cases 2 were fatal and 1 recovered. This last was attacked on 22nd March and recovered on 1st April. He had no buboes, but only tenderness in groins and the diagnosis of plague was not confirmed bacteriologically. None of the cases showed any signs of infection when leaving Bombay.

6 cases of plague, 16 cases of cholera, 3 cases of small-pox and 7 cases of chicken-pox occurred on vessels including Indian sailing craft lying in the harbour and docks.

9. Tabular Statement No. 2 gives details of infectious diseases on vessels in the harbour and docks. The clothing and bedding of the crews of these vessels aggregating 1,443 persons were disinfected. All these vessels were thoroughly disinfected.

10. In August 1912 one of the Port Trust lascars died of cholera in the Lascars' Quarters, Prince's and Victoria Docks. The necessary steps for the disinfection of the room occupied by the deceased were taken by the Dock Authorities.

V.—Disinfection and fumigation of ships.

11. During the year under report 92 vessels of all sorts were disinfected under the personal supervision of the Port Health Officer or of one of the Port Health Staff.

12. The fumigation of 54 vessels including 27 outward and inward pilgrim-ships was carried out by means of the Clayton process under the supervision of the Port Health Officer.

13. All vessels on which cases of plague occurred had their holds thoroughly fumigated.

14. The Port disinfection station received every Monday clothing and bedding from various hospitals for disinfection. 308 bundles containing such clothing and bedding were disinfected as against 221 during the previous year.

VI.—General health of the shipping.

15. During the year under report 899 persons connected with the shipping were admitted into the various hospitals in the City. The St. George's Hospital admitted 361 European patients of whom 14 died, 328 were discharged cured and 19 remained under treatment after the 31st December 1912. The Jamsetji Jijibhoy Hospital admitted 179 Indian patients of whom 38 died, and the Gokuldas Tejpal Hospital 359 Indians, of whom 47 died.

16. No death occurred in connection with the cleansing of bilges of ships during the year. There were 174 accidents on board of vessels which were lying in the harbour or docks.

VII.—Red Sea pilgrim traffic.

A.—Outward Pilgrim Traffic.

17. In accordance with the Government of India's Notification, Home Department (Sanitary), No. 1606, dated the 13th July 1908, and Government Resolution, General Depart-

ment, No. 4361, dated the 18th August 1909, and Government of India Notification, Department of Education (Sanitary), No. 635, dated Simla, the 24th April 1912, reproduced in Bombay Government Notification, General Department, No. 2759, dated 30th April 1912, the Ports of Bombay and Karáchi were open for the embarkation of Mahomedans making a pilgrimage to Mecca *vid* Jeddah. Before the pilgrims embarked at Bombay the ships were thoroughly cleansed and freed from rats by means of the Clayton process. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark.

18. The names of the ships, the numbers of pilgrims carried by them, and the dates on which they left Bombay for Jeddah are given below :—

	Name of Vessel.	Number of Pilgrims sailed.	Date of Departure.
1.	S.S. "Homayun"	192	4th January 1912.
2.	S.S. "Khosrou"	151	5th February 1912.
3.	S.S. "Mohammadi"	217	15th May 1912.
4.	S.S. "Islami"	769	11th July 1912.
5.	S.S. "Rahmani"	679	21st do.
6.	S.S. "Homayun"	826	31st do.
7.	S.S. "Mansuri"	693	10th August 1912.
8.	S.S. "Khosrou"	867	17th do.
9.	S.S. "Islami"	766	23rd do.
10.	S.S. "Budrie"	636	10th September 1912.
11.	S.S. "Alavi"	756	20th do.
12.	S.S. "Khosrou"	862	22nd do.
13.	S.S. "Homayun"	811	25th do.
14.	S.S. "Islami"	762	29th do.
15.	S.S. "Mansuri"	692*	30th do.
16.	S.S. "Koweit"	1,142	4th October 1912.
17.	S.S. "Rahmani"	698	6th do.
18.	S.S. "Firoozi"	860	14th do.
19.	S.S. "Budrie"	636	18th do.
20.	S.S. "Alavi"	751	28th do.
21.	S.S. "Homayun"	820	29th do.
22.	S.S. "Lawoe"	647	31st do.
23.	S.S. "Koweit"	791	2nd November 1912.
		16,024	

19. It will be seen that 16,024 pilgrims including 202 who embarked at Karáchi left during the season as against 22,852 in the previous year.

20. The classification of the pilgrims is as follows :—

325	Bombay City.	615	Chinese Territory.
1,208	Bombay Presidency (including Sind). (The number includes 202 pilgrims who embarked at Karáchi for Jeddah *vid* Bombay.)	55	Afghanistan.
		244	Baluchistan.
591	Madras Presidency and Malabar.	27	Persia.
1,339	Bengal Presidency (including Behar).	878	Russian Territory.
3,599	Eastern Bengal and Assam.	185	Arabia.
1,896	United Provinces and Oudh.	9	Africa.
1,479	Punjab and North-West Frontier.	5	Egypt.
425	Central Provinces.	10	Turkey in Asia.
17	Central India.	624	Java.
86	Burma.	7	Borneo.
7	Ceylon (British Colony).	11	Tibet.
865	Native States of British India.	17	French India.
		1,500	Unclassified.
11,837		4,187	

Total ... 16,024

21. 10,587 outgoing pilgrims were vaccinated before starting by a special staff placed under the Police Commissioner by the Municipality. Besides these, many pilgrims from other Provinces and Native States had been vaccinated before leaving their homes for Bombay. It is thus probable that three-fourths of the pilgrims had been persuaded to voluntarily undergo vaccination and, considering that most of these were illiterate and many fanatical, it reflects the greatest credit on the Pilgrim Department under the Commissioner of Police and others

* Including 202 pilgrims from Karáchi.

who aided in persuading so large a percentage to avail themselves of the measure. It is hoped that the degree of immunity thus afforded will materially reduce the risk of infection in the Hedjaz.

22. A fully equipped plague observation station, capable of receiving an entire ship-load of pilgrims from a plague-infected vessel for treatment under Article 21 of the Paris Convention, was established at Perim. All the pilgrim-ships, after having been inspected at Aden or Perim, called at Camaran where they landed their passengers to undergo observation according to Turkish Rules before the Turkish Authorities allowed them to proceed to Jeddah.

23. So far as I can gather there were no cases of plague among the pilgrims who left for Mecca during the year under report. One death from high fever, suspected to be due to plague, was declared at Aden on arrival of the S. S. "Khosrou" which left Bombay with pilgrims on 22nd September; but the ship was not ordered to call at Perim on that account. An outbreak of cholera is reported to have occurred in the Quarantine Camp at Camaran among pilgrims landed there by S. S. "Rahmani", S. S. "Homayun", S. S. "Mansuri", S. S. "Khosrou" and S. S. "Islami" although these vessels arrived clean at Camaran and no cases occurred upon them after leaving that port. Cholera is also said to have broken out among some pilgrims who were landed at Camaran from a ship from Java at the same time as it was supposed to have commenced among Indian pilgrims. The British Vice-Consul at Hodeida and Camaran stated, however, that he entertained the gravest doubts about the majority, if not all, of the cases declared to be cholera by the Camaran Sanitary Authorities and, in this connection, I would invite attention to the following extract from paragraph 2 of Dr. Clemow's letter No. 35, dated 16th March 1912, printed as an accompaniment to Government Resolution No. 4441, dated 10th July 1912, *viz.*:—"The Camaran and other Lazarets, created under international auspices, are very costly institutions to keep up and they depend for their support upon the quarantine dues levied in them and these again are proportional to the length of the quarantine undergone in them. The attitude of Turkey in this matter is therefore easy to understand, however much it may be deplored."

24. From the medical diaries of the doctors in medical charge of pilgrim-ships it appears that there were 69 deaths on board these ships between Bombay and Jeddah. The causes are attributed to fever, old age, general debility, diarrhoea, dysentery, heart disease, phthisis, pneumonia, etc.

25. During the season under report no doctor was appointed to the medical charge of a pilgrim-ship unless he was in possession of either a degree, or at least the license of a recognised Indian University, or the qualification of a Military Assistant Surgeon. The class of medical officer offering was well up to the average.

B.—Inward Pilgrim Traffic.

26. During the year under report 11,670 pilgrims of the previous year's Haj and 2,754 of that of 1912 arrived from Jeddah in 22 vessels. The names of the ships and the number of pilgrims brought by each vessel, as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay, are tabulated in statement No. 3 which is attached to this report.

27. The total number of deaths which occurred at sea among the returning pilgrims was 247. The chief causes were old age, generel debility, dysentery, diarrhoea and privation.

28. Nine pilgrim-ships had during their voyage from Jeddah to Bombay one death from plague, 56 cases of small-pox and 6 cases of chicken-pox. Of the 56 cases of small-pox, 17 were landed at Perim, 4 were landed at Aden, 1 died during the voyage, 2 were convalescent and 32 who were in an infective stage were removed to the Arthur Road Hospital for treatment. Of these 32 patients 30 were pilgrims and 2 were lascars. The six cases of chicken-pox were detected at the Disinfection Shed while the pilgrims were undergoing disinfection of their clothing and bedding. The patients were removed to the Arthur Road Hospital for treatment. Vaccination was offered to the pilgrims among whom small-pox had occurred, but only 80 availed themselves of the measure.

29. One plague-infected vessel was thoroughly fumigated by the Clayton apparatus and seven others at the request of the owners. 6,520 pilgrims, among whom the death from plague and cases of small-pox and chicken-pox had occurred, had their clothing and bedding disinfected before they were handed over to the Protector of Pilgrims for despatch to their homes. The effects of 830 members of crews of the infected ships were also disinfected. The above number includes 279 members of crews and 2,721 pilgrims of 3 non-infected ships whose clothing and bedding were disinfected on acount of high mortality.

VIII.—Emigration Traffic.

30. Owing to the prevalence of plague in the City of Bombay the Emigration Traffic has been suspended since the year 1897.

IX.—Sanitary State of the Harbour and Foreshore.

31. The sanitary state of the harbour and of the various bunders, basins and docks was fairly satisfactory.

X.—Cholera, Small-pox and Plague in the City of Bombay.

32. During the year under report 1,790 deaths from cholera, 979 deaths from small-pox and 1,717 deaths from plague occurred in the City of Bombay as against 123 deaths from cholera, 443 deaths from small-pox and 4,006 deaths from plague during the preceding year.

XI.—Establishment.

33. From 11th August to 31st December 1912 Lieut.-Colonel J. Crimmin, V.C., C.I.E., V.D., D.P.H., I. M. S., acted as Port Health Officer, the undersigned being in charge for the remainder of the year.

34. The following list shows the names of the Medical Officers and Subordinates who did duty under the Port Health Officer from time to time during the year:—

Names.	Period of Service.
	Y. m. d.
Dr. (Miss) S. Smith	1 0 0
Assistant Surgeon H. F. Otto, I.S.M.D.	1 0 0
Sub-Assistant Surgeon B. M. Bhatt	0 10 15
Do. do. F. H. Anklesaria	1 0 0
Do. do. A. V. Gokhale	0 3 28
Do. do. K. D. Mehta	0 1 6

35. The appointment of the Lady Doctor on the Port Health Staff has been made permanent.

36. The above medical staff carried out their respective duties, which were of a very onerous and responsible nature, with the same energy, tact and cheerfulness which they have hitherto displayed in the performance of the same.

Owing to the work being unusually heavy during the pilgrim season the services of a Commissioned Medical Officer, an Assistant Surgeon and a Lady Doctor had to be engaged on two occasions under Government Resolution, General Department, No. 4087, dated the 27th July 1897.

37. The Sanitary Police Staff under the Inspectorship of Mr. Dixon carried out their onerous duties to my entire satisfaction.

Mr. Shamrao S. Dhurandhar.
Mr. Dattatraya V. Gokhale.

38. The marginally noted members of the office staff under Mr. Ramrao G. Kamalakar worked hard and well and to my entire satisfaction.

39. The office peons and all the members of the disinfection and steam launch establishments worked satisfactorily.

40. Moulvi Abdulla Ahmed, the Protector of Pilgrims, Assistant Surgeon Easdon, Dr. (Miss) Graham and Miss Jessop, the Lady Inspectors, who were detailed to disinfect and count female pilgrims from time to time, Mrs. M. Lennon, Lady Superintendent of Pilgrims, Mr. H. M. Robottom, the Inspector of the Preventive Service, and the Dock Police under Superintendent J. Walton rendered much help to the Port Health Staff while carrying out the inspection and disinfection of pilgrims and in connection with their despatch from the disinfection station to the steamers by which they travelled.

41. I am also indebted for valuable assistance in the embarkation of pilgrims and otherwise to Mr. C. R. Watkins, Assistant Collector of Customs, who gave up much of his time in order to help in securing harmonious working between the different departments concerned.

42. The shipping agents and commanders of vessels, as a rule, observed the regulations, and crrried out cheerfully the orders framed in connection with the Paris Sanitary Convention.

W. E. JENNINGS, M.D., D.P.H.,
Lieut.-Colonel, I. M. S.,
Health Officer of the Port.

Bombay Port Health Office:
Town Customs House, dated 1st March 1913.

TABLE No. 1.

The following tabular statement gives a summary of the Shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1912 :—

Vessels including country craft.	Number of vessels inspected.	Number of persons including crew of vessels.	Number of Asiatic crew and 3rd Class or deck passengers disinfected.	Number of vessels.		Number of persons vaccinated.	Diseases and number of cases of each						
				Disinfected.	Fumigated.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Sleeping sickness.
1912.													
Entered	193	43,188	11,439	14	8	80	3	...	59	6	6	5	...
Left	841	150,323	85,022	...	45	10,587	4	1	5	1	...	...	...
In harbour during the year	24	1,443	1,443	24	1	.....	6	16	3	...	7	...	...
Total ...	1,058	194,954	97,954	38	54	10,667	13	17	67	7	13	5	...
Total for 1911 ...	1,057	205,207	106,766	69		15,260	7	8	16	7	13	5	1

TABLE No. 2.

The following table includes all steamers, square-rigged vessels and Native sailing craft which became infected while lying in the Port of Bombay during the year 1912 :—

Months.	Number of persons who were attacked with infectious disease at the Bunder and in Docks.		Total number of infected vessels.	Total number of infectious disease in the Bombay Harbour.					Number of crew disinfected.
	Plague.	Cholera.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	
1912.									
January	...	...	4	2	...	1	...	2	397
February	...	...	1	...	...	...	...	1	85
March	...	...	2	2	...	...	...	1	49
April	...	...	2	...	...	2	...	...	55
May	...	...	2	1	1	...	...	1	190
June	...	...	4	1	5	...	...	...	455
July	...	...	3	...	3	...	...	...	80
August	...	1	3	...	3	...	...	...	83
September	...	...	1	...	3	...	...	...	7
October	...	...	...	...	...	...	...	...	...
November	...	...	2	...	...	...	...	2	42
December	...	...	...	...	...	...	...	...	...
Total ..	...	1	24	6	15	3	...	7	1,443
Total for 1911 ..	...	1	8	1	1	3	3	1	906

TABLE No. 3.

Statement showing the number of pilgrims who returned to Bombay from Mecca by vessels during the year 1912 :—

No.	Name of Ship.	Date of arrival.	Number of crew inspected.	Number of pilgrims inspected.	Number of deaths during voyage.	Number of cases of infectious diseases on board during voyage on arrival.		Number of persons vaccinated.	Remarks.
						On arrival.	During voyage.		
1	S. S. "Alavi"	6th January 1912 ...	84	759	11	...	...	...	
2	S. S. "Shah Jehan" ...	11th do. ...	183	934	44	...	...	...	
3	S. S. "Trieste"	11th do. ...	63	59	...	...	...	...	Ordinary passenger ship bringing 5 pilgrims.
4	S. S. "Khosrou" ...	23rd do. ...	112	865	10	5	...	...	4 small-pox on arrival and one detected at the Disinfection shed.
5	S. S. "Mansoori" ...	26th do. ...	84	611	7	7	1	...	7 small-pox on arrival. 1 ,, landed at Perim.
6	S. S. "Sofala"	4th February 1912 ...	102	1,268	28	19 6	11	...	17 small-pox on arrival. 1 ,, died during voyage. 10 ,, landed at Perim. 6 chicken-pox. } These 8 cases detected at the shed at the time of their disinfection. 2 small-pox. }
7	S. S. "Majidi"	7th do. ...	80	681	13	...	...	...	
8	S. S. "Homayun" ...	13th do. ...	89	807	4	...	...	...	
9	S. S. "Hooseinee" ...	15th do. ...	58	427	9	...	...	...	
10	S. S. "Nawab"	16th do. ...	78	150	17	2	...	...	2 cases of small-pox among crew landed at Perim. 727 Pilgrims landed at Karáchi.
11	S. S. "Budrie"	17th do. ...	82	720	7	...	1	...	1 suspected case of plague died on 6th February 1912.
12	S. S. "Mahommadi" ...	22nd do. ...	98	664	7	...	2	...	2 convalescent cases of small-pox embarked at Perim for Bombay.
13	S. S. "Saifi"	5th March 1912 ...	82	435	4	...	...	...	
14	S. S. "Norkoowa" ...	5th do. ...	68	306	18	...	6	...	2 cases of small-pox landed at Perim. 4 ,, ,, at Aden over a month ago.
15	S. S. "Khosrou" ...	7th do. ...	93	830	3	...	...	...	
16	S. S. "Rahmani" ...	15th do. ...	86	684	2	...	2	...	2 cases of small-pox landed at Perim.
17	S. S. "Naderi"	30th April 1912 ...	74	510	3*	...	...	...	* Including one child of 3 days old.
18	S. S. "Mahommadi" ...	21st June 1912 ...	75	652	2	...	...	...	
19	S. S. "Islami"	1st July 1912 ...	77	208	...	1	...	...	One case of modified small-pox.
20	S. S. "Homayun" ...	12th December 1912 ...	95	782	22	...	...	...	Pilgrims ordered to be disinfected on account of heavy mortality.
21	S. S. "Koweit"	15th do. ...	94	1,129	23	...	...	...	Do. do.
22	S. S. "Khosrou" ...	18th do. ...	90	843	13	...	...	...	Do. do.
			1,947	14,424	247	40	23	80	

APPENDIX II (*b*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF KARACHI FOR THE YEAR ENDING 31st DECEMBER 1912.

Port Health Office and
Disinfection Camp, Grass Bunder,
Karáchi, dated the January 1913.

Outgoing Vessels.

During the year under report 605 outward-bound steam vessels were inspected and given bills of health by the Health Officer of the Port.

Of this number 439 were proceeding to Aden, the Red Sea and Europe, and 166 to other ports out of India including the Persian Gulf.

In addition, 1 steamer which called at Karáchi with pilgrims, who were returning to Karáchi and Bombay from Jeddah, had her bill of health duly endorsed when she sailed hence to Bombay after her crew and passengers had been medically inspected. Thus, the total number of bills of health issued to steamers leaving this port was 606, as against 456 during the preceding year.

Bills of health were also given after inspection to 273 country boats, as against 220 during the preceding year.

The native crews and deck passengers of all vessels and country craft proceeding to ports out of India were medically inspected, and their bedding and clothing were disinfected by steam at the Port Health Camp.

The crews' and passengers' boots and shoes when requiring disinfection were exposed to the action of formaldehyde gas in the apparatus specially designed for this purpose at the Port Health Camp.

In-coming Vessels.

Seventy-five Steam Vessels and 27 country boats were inpected for the existence of infectious diseases, as against 113 steam vessels and 21 country boats in the preceding year. Of these 75 steamers, 3 (pilgrim vessels) arrived from Jeddah *via* Aden and Bombay, 4 (troopships) from Southampton *via* Aden, 36 from East African Ports, and the remaining 39 from various other ports. Of the 27 country boats, 26 arrived from East African Ports and 1 from Cutch Mándvi.

The following tabular statement shows the number of vessels, crews and passengers inspected during the year :—

	Vessels.			Crews and passengers.		
	Steamers.	Country boats.	Total.	Steamers.	Country boats.	Total.
In-coming	75	27	102	15,900	396	16,296
Outgoing	606	273	879	70,716	3,400	74,116
					Total ...	90,412

Out of the total number (90,412) of crews and passengers who were medically inspected on their arrival at or departure from the Port of Karáchi, 44,040 passengers also had their bedding and clothing disinfected. The corresponding figures for last year were 81,922 and 42,265, respectively.

On several occasions during the past year the clothing and bedding of patients suffering from infectious disease as well as the clothing and bedding of "contacts" were sent for disinfection from the Epidemic Diseases Hospital, the Civil Hospital, and other places in Karáchi to the Port Health camp, where they were duly disinfected by steam in the "Equifex" stove.

P. and O. Mail Passengers.

One hundred and seventy-seven Saloon passengers proceeding to Europe *via* Bombay were medically inspected on shore at Karáchi and given passes for direct transhipment to the P. and O. Mail Steamers at Bombay.

Monsoon Arrangements.

During the monsoon season (8th June to 14th September 1912), the disinfection of Native crews and deck passengers of steamers proceeding to the Persian Gulf from Bombay *vid* Karáchi was carried out at Bombay instead of at Karáchi, in accordance with Government Resolution No. 1427—P., dated 29th November 1909. During the period of their stay in Karáchi harbour these steamers were placed in strict quarantine, the coolies being disinfected and medically inspected at the Port Health Camp before being allowed on board to work cargo. After the 14th September 1912 the disinfection of the steamers in question was carried out in Karáchi in accordance with the abovementioned Government Resolution.

Plague.

During the year under report one case of plague occurred in the harbour on board the S. S. "City of Birmingham" on the 9th January 1912, the patient (a native fireman) being removed to the Epidemic Diseases Hospital where he died on the following day. On the same day the vessel was thoroughly disinfected (fumigated) by means of the Clayton apparatus under the supervision of the Port Health Officer, and the clothing and bedding of the native crew were disinfected by steam in the Equifex stove at the Port Health Camp. Anti-plague inoculation was offered to the members (both European and Indian) of the crew, but they failed to avail themselves of this prophylactic measure. No further outbreak of plague occurred on board the "City of Birmingham" up to the time of her sailing from Karáchi for Europe on the 13th January 1912, or during her subsequent voyages to and from this port.

One death from plague was reported amongst the deck passengers on board the S. S. "Mahanadi" on the 17th April 1912, during the voyage from Bombay to Karáchi. The deceased formed one of a party of 52 lascars who were to be transhipped as a "passenger crew" to the S. S. "Sandon Hall" at Karáchi. Accordingly, before the remaining 51 lascars transhipped to the "Sandon Hall", they were medically inspected and all their kit was thoroughly disinfected at the Port Health Camp. The other passengers were also medically inspected before landing, and the decks, forecastles, etc., of the S. S. "Mahanadi" were disinfected and the crew medically examined before the vessel sailed hence on the return voyage to Bombay.

The S. S. "Palitana" which arrived at Karáchi on the 8th May 1912, reported that a case of plague (the patient being a Goanese Saloon waiter) which had occurred on board, had been landed at Muscat a few days previously. As the steamer had already been disinfected by the quarantine authorities at Muscat, on her arrival here the crew and passengers were medically inspected and found to be free from plague or any other infectious disease. A note to this effect was accordingly endorsed on the vessel's bill of health when she continued her voyage to Bombay from Karáchi, and a telegram was despatched to the Port Health Officer of Bombay informing him of the abovementioned occurrence.

Cholera.

During the past year 4 cases of this disease were removed for treatment to the Epidemic Diseases Hospital on shore from in-coming vessels, *viz.*, 1 case from the S. S. "Baroda" and 3 cases from the S. S. "Toronto". Also 1 death from cholera was reported by the "Baroda" as having occurred on board on the 14th June 1912, between Bombay and Karáchi. All the necessary precautionary measures were carried out on board the abovementioned steamers on their arrival at Karáchi and also before they sailed hence for foreign ports.

Small-pox.

Four cases of small-pox were removed from in-coming vessels to the Epidemic Diseases Hospital, *viz.*, 2 cases from the S. S. "Dwarka," 1 from the S. S. "Dumra" and 1 from the S. S. "City of York," and the usual precautionary measures were carried out on board the steamers concerned both on their arrival at and departure from this port.

At the usual disinfection and medical inspection of deck passengers before embarkation at the Port Health Camp, 4 cases of small-pox were detected and sent to the Epidemic Diseases Hospital for treatment.

Chicken-pox.

Three cases (all of which occurred amongst Goanese saloon crews) were removed to hospital from in-coming vessels, *viz.*, 1 case each from the S. S. "Palitana," the S. S. "Kasara" and the S. S. "Trafford Hall."

Measles.

During the year under report 14 cases with 30 contacts occurred amongst the troops on board the transports arriving at Karáchi, *viz.*, 1 case on board the H. T. "Rohilla, and 13 cases with 30 contacts on board the R. I. M. S. "Hardinge." The patients and contacts on arrival were taken charge of by the military medical authorities, and their kit and bedding disinfected.

Jigger.

Telegraphic information having been received from the Wahivatdár of Cutch Mándvi that a passenger suffering from jigger was proceeding thence to Karáchi on board the S. S. "Netravati." On arrival of this vessel in Karáchi harbour the crew and passengers were medically inspected for the existence of jigger and, after the patient had been removed to hospital for treatment, the clothing and bedding of the crew and passengers were disinfected by steam at the Port Health Camp; the forecastles,' tween decks, etc., were also disinfected before the vessel returned to Bombay.

Sleeping Sickness.

No cases of this disease were detected during the past year.

Diseases other than the abovementioned.

During the year under report 65 deaths from natural causes (*e.g.*, pneumonia, bronchitis, old age and general debility, privation, etc.) were reported as having occurred on board of vessels either in Karáchi harbour or during the voyage to Karáchi. Of this number 28 deaths occurred on pilgrim-ships.

Nineteen cases of illness of all sorts (malarial fever, enteric fever, dysentery, pneumonia, etc.) amongst ship's crews and passengers were detected in the course of the usual disinfection and medical inspection of crews and passengers before embarkation, of which 3 cases were sent to their homes and 16 to the Civil Hospital for treatment.

Emigrants.

Two hundred and sixty-eight artizans (emigrants) proceeding to the Uganda Railway, accompanied by sixty-seven dependants, passed through the Port Health Camp, Karáchi, where they underwent the usual five days' observation (segregation) before embarking for Uganda (*vid* Bombay). On the day of sailing they were medically inspected and their bedding and clothing disinfected at the Port Health Camp under the supervision of the Port Health Officer who, as Medical Inspector of Emigrants, Karáchi, also certified that they were in a fit state of health to undertake the voyage to East Africa, as required under section 65 (*1*) of the Indian Emigration Act XVII of 1908.

The corresponding numbers of artizans (emigrants) and dependants who passed through the Port Health Camp, Karáchi, during the year 1911 were 175 and 39 respectively.

Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

In accordance with the Government of India's Notification, Department of Education (Sanitary), No. 635, dated (Simla), the 24th April 1912, and Government Resolution, General Department, Bombay, No. 2670, dated the 26th April 1912, the Port of Karáchi was opened for the embarkation of Mahomedans making a pilgrimage to Mecca *vid* Jeddah. Before the pilgrims embarked the ship was thoroughly cleansed and freed from rats by means of the Clayton process. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark.

The name of the ship, the number of pilgrims carried by her, and the date on which she left Karáchi for Jeddah (*vid* Bombay) is given below :—

Number.	Name of vessel.	Number of pilgrims sailed.	Date of departure.
1	S. S. "Mansuri" ...	202	26th September 1912.

B.—Inward Pilgrim Traffic.

The following table shows the number of pilgrims who returned to Karáchi from Jeddah *vid* Aden and Bombay, the names of the ships in which they travelled, and other particulars :—

Number.	Name of vessels.	Date of arrival.	Number of crew.	Number of Pilgrims for Karáchi.	Number of pilgrims for Bombay.	Number of deaths from Jeddah to Aden.	Number of deaths from Aden to Karáchi.
1	S. S. "Shah Ameer"	16th January 1912.	80	38	...	...	...
2	S. S. "Nowab" ...	13th February 1912.	79	727	151	3	13
3	S. S. "Alavi" ...	12th December 1912.	80	739	...	8	4
	Total ...		239	1,504	151	11	17

The S. S. "Nowab" and the S. S. "Alavi" brought pilgrims direct from Jeddah *vid* Aden, while the S. S. "Shah Ameer" arrived from Bombay with 38 pilgrims who had embarked from Jeddah in the S. S. "Shah Jehan."

One death occurred amongst the pilgrims in Karáchi harbour, while 27 deaths were reported as having occurred on board of pilgrim vessels during their voyage from Jeddah to Karáchi, the causes of death being attributed to old age, general debility, fever, dysentery privation, etc.

One pilgrim, being found on arrival to be suffering from exhaustion due to privation was sent to the Civil Hospital for treatment.

Two cases of small-pox which occurred amongst the native crew of the S. S. "Nowab" between Jeddah and Perim were landed at Perim, where the ship was duly disinfected. On their arrival at Karáchi the crews and pilgrims on board the abovementioned ships were medically inspected and found to be free from any contagious or infectious disease.

In all 1,504 pilgrims landed at Karáchi, while 151 pilgrims who were bound for Bombay proceeded to that port on board the S. S. "Nowab" without landing in Karáchi.

There was a qualified doctor, a compounder, a female attendant, a hospital, and a steam disinfector in good working order on board each of the abovementioned pilgrim vessels, and the arrangements were satisfactory.

PILGRIM CAMP.

As sanctioned in Government Resolution, General Department, No. 2670, dated the 26th April 1912, a camp for the accommodation of pilgrims to Jeddah while awaiting embarkation at Karáchi, was constructed in the Lyari quarter of the town—on the North Bank of the Southern branch of the Lyari river, about 400 yards distant from the tram line in Lawrence Road.

It was opened early in August 1912 under the charge of the Protector of Pilgrims, and closed, so far as the outward pilgrim season was concerned, in the middle of November. During this period over 300 pilgrims availed themselves of the accommodation offered by the camp, although a larger number than this lodged in the old musafirkhana and also in private houses with friends.

It has been calculated that during the four months (August to November) of the outward pilgrim season of 1912 several hundreds of pilgrims came to Karáchi to embark hence for Jeddah, but after waiting many days, and in some instances many weeks, for the ships which the local Agents of the Steamships Company concerned had stated would call in due course at Karáchi but which, with one exception, failed to arrive, the pilgrims proceeded to Bombay to embark thence for Jeddah at the earliest opportunity, the fares which they had already paid for the voyage from Karáchi to Jeddah being refunded to them by the local Agents.

As stated above, only one ship (the S. S. "Mansuri") called at Karáchi and embarked 202 pilgrims for Jeddah (*vid* Bombay) on the 26th September 1912. The additional Port Health Staff entertained for the four months of the outward pilgrim traffic consisted of one 4th grade Sub-Assistant Surgeon, one Nurse, one Dai, and one Wardboy. All these worked daily in the dispensary at the Pilgrim camp; they also assisted in the disinfection of the pilgrims at the Port Health camp and in their embarkation at the wharf, under the direction of the Port Health Officer, on the day the pilgrim ship sailed. 129 cases of illness of all sorts (fever, dysentery, bronchitis, ulcers, conjunctivitis, etc.) which occurred amongst the pilgrims were treated in the dispensary; there were no deaths. 498 pilgrims were vaccinted or revaccinated in Karáchi during the outgoing Haj season.

Clayton Apparatus.

During the past year the Clayton apparatus was used to disinfect (fumigate) seven vessels, one of these being plague-infected, another being a pilgrim ship embarking pilgrims for Jeddah from Karáchi, while the remaining five were claytonised at the request of their Agents before sailing hence for ports outside India, as shown in the following table:—

No.	Name of vessel.	Date of fumigation.	Reason.
1	S. S. "City of Birmingham" ...	10th January 1912 ...	Plague-infected.
2	S. S. "Mansuri" ...	18th September 1912 ...	*Prior to embarking pilgrims for Jeddah.*
3	S. S. "Fazilka" ...	19th September 1912 ...	*At the request of the Agents.*
4	S. S. "Shirala" ...	27th September 1912 ...	*Do.*
5	S. S. "Bezwada" ...	28th September 1912 ...	*Do.*
6	S. S. "Islami" ...	8th November 1912 ...	*Do.*
7	S. S. "Alavi" ...	13th December 1912 ...	Do.

Sanitary State of the Harbour.

The sanitary state of the harbour was fairly satisfactory.

Port Health Camp.

The buildings for the new Port Health Office and Disinfection Station adjoining the (new) Chemical Analyser's Laboratory at Keamari will be completed and ready for occupation by the end of January 1913. In last year's annual report attention was drawn to the urgent need of a second (or supplementary) Equifex stove for the disinfection work of the Port Health Department. During the year just closed there was again a steady increase in the number of the crews and passengers who were disinfected in accordance with the regulations. The single small Equifex stove which has been in constant use at the Disinfection Station, Karáchi, for the last fourteen years is hardly able to cope with the "rush" of work occasioned by the disinfection of the clothing and bedding of several hundreds of persons (crews and passengers) within a given time, the result being much inconvenience and delay. In these circumstances a second (or supplementary) Equifex stove, of large size, is urgently needed in order that the necessary disinfection at the Port Health Camp may be carried out, as it should be, with efficiency and despatch.

Port Health Establishment.

During the year under report the staff was as follows:—

Assistant Surgeon A. H. Macgregor, I.S.M.D.;

Mrs. Lake;

Sub-Assistant Surgeon Baharsing Toursing.

As Assistant Port Health Officer Assistant Surgeon Macgregor rendered valuable help in the work of the Port Health Department.

Mrs. Lake, Nurse, performed her duties in connection with the disinfection and medical inspection of women and children carefully and satisfactorily.

Sub-Assistant Surgeon Baharsing Toursing carried out the duties entrusted to him with great zeal and tact and to my entire satisfaction. The clerk, Mr. Mahomed Jaffer Sheikh Ibrahim, performed his duties very diligently, efficiently and to my entire satisfaction.

The office peons and all the members of the disinfection and Steam Launch establishments worked satisfactorily.

H. C. VENIS,
Port Health Officer, Karáchi.

APPENDIX II (*c*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF ADEN FOR THE YEAR 1912.

I.—General Remarks.

Shipping.—1,630 Steamers and Square-rigged vessels were granted bills of health during the year.

Of the above number 1,014 under the British flag and 616 under Foreign flags.

Bills of health issued to the vessels from infected ports were annotated according to the circumstances of each case.

1,284 bills of health were issued to buggalows during the year.

The accompanying table A gives a list of vessels on board of which infectious diseases existed on arrival. In case of these vessels all possible sanitary precautions were taken on arrival at Aden to prevent the spread of disease.

Vessels and Native Craft arriving from Berbera, the Somali Coast and from East Africa were personally inspected and certified free from small-pox, jigger and sleeping sickness.

The following cases of infectious diseases were landed from the shipping :—

Small-pox	3	Exclusive of cases from pilgrim ships.
Measles	2	
Chicken-pox	1	
Plague	2	
Jigger	4	
Observation	1	

II.—Pilgrim Traffic.

Fifty-one pilgrim ships carrying pilgrims passed through this port during the year; all were medically inspected, but not granted pratique :—

Year.	Number of ships.	Number of pilgrims.	Number of deaths.	Cases of infectious disease on board.			Remarks.
				Small-pox.	Cholera.	Plague.	
1912	51	36,553	110	6	1*	1*	*Suspicious cases.

III.—Table A.

List of vessels not carrying pilgrims on board of which infectious diseases existed on arrival at Aden :—

Number of ships.	Number of cases landed.	Number of cases died.	Number of cases recovered.	Average of cases per ship.	Average stay in hospital of each patient.		Remarks.
					Fatal.	Non-fatal.	
9	9	2	7	1	6	18·3	
					15·6		

List of ships on board of which the cases of infectious diseases existed on arrival at this port during the year ending 31st December 1912.

Date.	Name of ship.	Nationality.	From	To	Number of cases.	Remarks.
2nd January 1912	H.T. "Dongola"	British	Bombay	Southampton	1	Measles slight.
7th " 1912	S.S. "China"	"	London	Bombay	1	Measles landed.
15th " 1912	" "Golconda"	"	"	Calcutta	1	Measles on board.
27th " 1912	" "Prinz Ludwig"	German	Yokohama	Hamburg	4	Measles on board.
15th February 1912	H. M. S. "Dido"	British	Port Said	Muscat	1	Measles landed.
8th March 1912	S. S. "Wooda"	"	Bombay	Hamburg	1	Small-pox landed.
10th " 1912	" "Mongolia"	"	London	Auckland	1	Measles convalescent on board.
23rd " 1912	" "Kassinga"	"	Calcutta	New York	1	Chicken-pox landed.
24th " 1912	" "Akana"	"	Bombay	Hull	1	Bubonic Plague landed.
31st " 1912	" "Salsette"	"	Suez	Bombay	1	Small-pox on board.
6th April 1912	" "Yorch"	German	Colombo	Bremen	1	Small-pox landed.
10th " 1912	" "Clan Sutherland".	British	Mangalore	London	1	Suspicious case of small-pox found on board.
29th August 1912	" "India"	"	Bombay	Aden	1	Plague landed.
17th September 1912	" "Etruria"	Italy	Mombassa	Massua	4	Cases Jigger landed.

IV.—The following are the names and other information regarding pilgrim ships which passed through Aden during the year under report :—

No.	Date and Month.	Names of vessels.	Nationality.	From	To	Declared number of pilgrims.	Number of cases of infectious diseases.	Deaths.
1	13th January 1912	S. S. "Homayun"	British	Bombay	Jeddah	177	.....	...
2	15th "	" "Khosrou"	"	Jeddah	Bombay	874	.....	4
3	18th "	" "Mansuri"	"	"	"	683	.....	1
4	23rd "	" "Norkoowa"	"	"	"	479	1 Small-pox.	2
5	25th "	" "Sofala"	"	"	"	1,531	.....	6
6	26th "	" "Majidi"	"	"	"	686	.....	3
7	3rd February 1912	" "Homayun"	"	"	"	849	.....	1
8	4th "	" "Nawab"	"	"	"	877	.....	3
9	5th "	" "Huseinie"	"	"	"	430	.....	3
10	8th "	" "Budrie"	"	"	"	723	.....*	4
11	13th "	" "Mohammadi".	"	"	"	668	.....	3
12	23rd "	" "Saifi"	"	"	"	497	.....	...
13	" "	" "Norkoowa"	"	"	"	312	4 Small-pox	...
14	28th "	" "Khosrou"	"	"	"	882	.....	1
15	6th March 1912	" "Rahmani"	"	"	"	678	.....	...
16	21st April 1912	" "Naderi"	"	"	"	536	.....	...
17	11th June 1912	" "Mohammadi".	"	"	"	659	.....	...
18	23rd "	" "Islami"	"	"	"	108	.....	...
19	24th July 1912	" "Islami"	"	Bombay	Jeddah	770	.....	3
20	2nd August 1912	" "Rahmani"	"	"	"	675	.....	5
21	11th "	" "Homayun"	"	"	"	824	.....	2
22	20th "	" "Mansuri"	"	"	"	691	.....	2
23	28th "	" "Khosrou"	"	"	"	866	.....	1
24	3rd September 1912	" "Islami"	"	"	"	766	.....	...
25	4th "	" "Koweit"	"	Busrah	"	539	.....	1
26	19th "	" "Budrie"	"	Bombay	"	625	.....	1
27	29th "	" "Alavi"	"	"	"	756	.....	2
28	2nd October 1912	" "Khosrou"	"	"	"	859	.....	3
29	3rd "	" "Homayun"	"	"	"	805	.....	6
30	8th "	" "Mansuri"	"	Karáchi	"	692	.....	...
31	9th "	" "Islami"	"	Bombay	"	753	.....	9
32	11th "	" "Koweit"	"	"	"	1,148	.....	2
33	15th "	" "Rahmani"	"	"	"	698	.....	...
34	" "	" "Mosutari"	"	Busrah	"	549	.....	1
35	23rd "	" "Firozi"	"	Bombay	"	864	*1 Small-pox	2
36	24th "	" "Mohammadi"	"	Busrah	"	672	.....	1
37	26th "	" "Budrie"	"	Bombay	"	635	.....	1
38	27th "	" "Tigre"	Russian	Busrah	"	424	.....	...
39	5th November 1912	" "Alavi"	British	Bombay	"	745	.....	6
40	6th "	" "Homayun"	"	"	"	819	.....	1
41	7th "	" "Hoseinie"	"	Bushire	"	434	.....	1
42	8th "	" "Lawoe"	"	Bombay	"	647	.....	...
43	9th "	" "Koweit"	"	"	"	822	.....	2
44	2nd December 1912	" "Menado"	Dutch	Jeddah	Batavia	1,502	.....	3
45	3rd "	" "Alavi"	British	"	Karáchi	746	.....	4
46	" "	" "Homayun"	"	"	Bombay	799	.....	7
47	4th "	" "Hoseinie"	"	"	Banrein	504	.....	1
48	5th "	" "Budrie"	"	"	Persian Gulf	622	.....	4
49	6th "	" "Koweit"	"	"	Bombay	1,155	.....	3
50	8th "	" "Khosrou"	"	"	"	844	.....	5
51	13th "	" "Lawoe"	"	"	Muhammura *vid* Muscat.	644	1†	...

* A case of small-pox on board, directed to land at Perim.
† A case of suspicious cholera on board.
One suspicious case of plague on board the S. S. "Budrie".
S. S. Norkoowa arrived here from Jeddah with 479 pilgrims and left for Bombay on 5th February 1912 with 419 pilgrims and 4 cases of small-pox were landed during her stay in Aden.

V.—Prevailing Diseases.

Malarial Fever, diseases of respiratory and digestive systems, ulcers, local injuries and small-pox.

Vaccination was offered to all arrivals as an alternative to quarantine, and residents of Aden, who had not been vaccinated, were persuaded to undergo the operation.

VI.—Statement showing the number of cases treated at the Small-pox Hospital, Maalla, during the year under report :—

Year.	Remaining as per last return.	Admissions.	Deaths.	Protected.	Unprotected.
1912 ...	.....	22	8	9	13

Source of admission.					European.	Remarks.
Shipping.	Steamer Point.	Maalla.	Crater.	Interior.		
12	4	3	1	2	2	Small-pox 17 Chicken-pox 1 Measles 2 Obsn. 2

VII.—Statement showing the tubes received, their cost, and the vaccination operations performed during the year :—

Number of tubes received.	Cost.	Remarks.
Bombay.	Glycerinated vaccine.	
5,200	Rs. a. p. 1,300 0 0	

Total number of vaccination operations performed.	Result.			Remarks.
	Successful.	Failed.	Unknown.	
8,647	45	.....	8,602	

The results of a large number of the operations are unknown, owing to the shifting population but it may be noted that many more persons are vaccinated than was the case formerly.

Cases of small-pox of local origin are almost unknown.

VIII.—Establishment.

Lieut.-Colonel S. E. Prall, I. M. S., Health Officer of the Port, Aden, from 1st January to 31st December 1912.

IX.—Office Establishment.

Mr. A. E. Almeida, clerk, 1st January to 10th April 1912, and transferred to India from 11th April 1912.

Mr. J. F. Menezes acted as clerk from 11th to 19th April 1912.

Mr. G. F. Andeen appointed clerk from 20th April to 31st December 1912.

Peon Lakshman Krishna from 1st to 14th January 1912, granted leave without pay from 15th January 1912 forenoon.

Md. Khamis appointed acting peon from 22nd January 1912 forenoon, services dispensed with from 22nd March 1912 forenoon.

Hassan Awad appointed acting peon from 23rd to 31st March 1912, services dispensed with from 1st April 1912 forenoon.

Syed Vahiya appointed acting peon from 7th April 1912 forenoon and confirmed from 16th July 1912, *vice* peon Lakshman Krishna, struck off the strength of the Establishment.

X.—Launch Establishment.

1. Driver Shaikh Ali, 1st January to 30th September 1912 and resigned from 1st October 1912, and Md. Ali was taken up in his place from 1st October 1912 forenoon, and has been working since.

2. Succani Md. Ahmed Suleman, 1st January to 31st December 1912.

3. Stoker Hussein Noman, 1st January to 31st December 1912.

4. Lascar Md. Magon, 1st January to 31st December 1912.

S. E. PRALL,
Lieut.-Colonel, I. M. S.,
Health Officer of the Port, Aden.

Aden, 31st January 1913.

APPENDIX III.

The following table shows when the drainage systems and water-works were completed in the towns mentioned therein, with the average annual death-rate for the five-year period preceding the introduction and also the ratio for the five-year period ending with the year under report, exclusive of recorded plague mortality.

The rural death-rates for each district are added for comparison :—

District.	Táluka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1912 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in rural circles for the year 1912.	Plague mortality in rural circles for the year 1912.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay	*a* 1879	*b* 1892	33·32	27·98	.....	.....
West Khándesh	Dhulia	Dhulia	.....	1896	30·29	32·50	48·99	·24
Ahmednagar	Ahmednagar	Ahmednagar	.....	1897	24·44	55·65	47·70	·15
Surat	Olpád	Surat	.....	1893	22·57	39·77	36·99	·34
Ahmedabad	Dáskroi	Ahmedabad	*c* 1893	1891	52·86	45·21	43·47	·02
Karáchi	Karáchi	Karáchi	*c* 1895	1894	30·45	35·15	8·46	·03
Sukkur	Sukkur	Sukkur	.....	1895	28·71	28·70	16·89	.....
Thána	Sálsette	Bándra	.....	1896	25·11	23·01	28·42	·36
Kolába	Panvel	Panvel	.....	1895	23·08	19·50	30·93	·77
Dhárwár	Hubli	Hubli	.....	1894	29·70	25·70	30·93	1·96
Ahmedabad	Viramgám	Viramgám	*d* 1893	.....	38·26	69·23	42·55	.....
East Khándesh	Jalgaon	Jalgaon	.....	1909	29·77	31·56	54·67	·30
Sholápur	Pandharpur	Pandharpur	.....	1911	38·31	49·98	34·49	·87

a Drainage works commenced in 1879 are still in progress.

b Tánsa water-works completed in 1892. Besides these there are Vehár and Tulshi Water-works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1912.*

1	2	3			4			5			6	7	8	9		
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	East Khándesh ..	521,546	512,618	1,034,214	25,532	23,863	49,395	24·69	23·07	47·76	106·99	..	1·71	26·27	24·82	51·09
2	West Khándesh ...	293,300	287,380	580,680	14,570	13,904	28,474	25·09	23·94	49·03	104·79	4·94	..	28·79	27·69	56·48
3	Násik	455,045	448,599	903,644	19,985	18,977	38,962	22·11	21·01	43·12	105·31	..	1·91	24·56	23·33	47·89
4	Thána	456,673	424,235	880,908	15,185	14,465	29,650	17·24	16·42	33·66	104·98	5·07	..	17·98	17·04	34·99
5	Kolába	295,085	298,972	594,057	11,535	10,807	22,342	19·42	18·19	37·61	106·74	7·11	..	18·68	17·60	36·23
6	City of Bombay ..	629,854	333,509	963,363	10,915	10,292	21,207	11·33	10·68	22·01	106·05	..	18·01	10·63	10·05	20·69
	Central Registration District.															
7	Ahmednagar	475,163	468,825	943,991	18,593	17,539	36,132	19·70	18·58	38·28	106·01	..	3·89	23·77	22·53	46·30
8	Poona	538,238	526,568	1,064,806	17,367	15,999	33,366	16·31	15·02	31·33	108·55	..	9·49	18·63	17·31	35·94
9	Sholápur	391,311	376,706	768,017	16,349	15,247	31,596	21·29	19·85	41·14	107·23	..	·08	21·24	20·15	41·39
10	Sátára	538,841	541,957	1,080,798	21,224	19,920	41,144	19·64	18·43	38·07	106·55	1·58	..	17·37	16·44	33·81
11	Ratnágiri	553,368	650,294	1,203,662	20,635	19,374	40,009	17·14	16·10	33·24	106·51	10 91	..	16·75	15·81	32·56
	Southern Registration District.															
12	Belgaum	478,458	463,490	941,948	19,843	19,087	38,930	21·06	20·26	41·33	103·96	5·07	..	18·45	17·74	36·19
13	Dhárwár	519,995	505,091	1,025,086	19,588	18,856	38,444	19·11	18·39	37·50	103·88	2·51	..	19·47	16·91	34·38
14	Bijápur	433,866	429,061	862,927	16,971	16,425	33,396	19·67	19·03	38·70	103·32	..	6·41	21·70	20·96	42·66
15	Kánara	220,065	210,369	430,434	7,630	7,390	15,020	17·73	17·17	34·89	103·25	2·17	..	15·24	14·49	29·73
	Gujarát Registration District.															
16	Surat	326,839	327,135	653,974	12,670	12,303	24,973	19·38	18·81	38·19	102·98	3·64	..	18·99	17·90	36·89
17	Broach	158,219	148,448	306,667	7,555	7,109	14,664	24·64	23·18	47 82	106·27	5·67	..	23·59	22·42	46·01
18	Kaira	370,174	321,468	691,642	15,791	14,414	30,205	22·83	20·84	43·67	109·55	5·69	..	21·87	19·76	41·63
19	Panch Maháls ..	165,902	156,751	322,653	6,495	6,159	12,654	20·13	19·09	39·22	105·46	12·87	..	23·94	23·14	47·08
20	Ahmedabad	432,124	395,213	827,337	15,844	14,536	30,380	19·15	17·57	36·72	109·00	..	13·07	19·12	17·22	36·34
	Sind Registration District.															
21	Karáchi	290,390	225,943	516,333	6,622	5,694	12,316	12·82	11·03	23·85	116·30	..	·50	13·45	11·69	25·14
22	Hyderabad	571,180	465,035	1,036,215	10,125	7,011	17,136	9·77	6·77	16·54	144·42	..	3·09	9·16	6·65	15·81
23	Thar and Párkar ..	255,339	201,399	456,738	4,316	3,497	7,813	9·45	7·66	17·11	123·42	..	4·39	12·08	9·20	21·28
24	Lárkhána	359,207	301,621	660,828	9,722	7,679	17,401	14·71	11·62	26·33	126·61	5·13	..	12·08	9·47	21·55
25	Sukkur	312,732	260,803	573,535	7,915	6,200	14,115	13·81	10·81	24·61	127·66	5·27	..	13·03	10·39	23·42
26	Upper Sind Frontier.	145,541	117,445	262,986	2,920	2,246	5,166	11·10	8·54	19·64	130·01	7·00	..	10·50	7·79	18·29
	Total for the Presidency ..	10,188,455	9,398,928	19,587,383	355,897	328,993	684,890	18·17	16·80	34·97	108·18	·99	..	18·44	17·09	35·53

ANNUAL FORM NO. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1912.*

1	2	3	4	5			6		7			8
Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS 1911).			BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	East Khándesh	4,550	227	521,546	512,668	1,034,214	49,395	47·76	25,673	25,496	51,169	100·69
2	West Khándesh	5,439	106	293,300	287,380	580,680	28,474	49·03	12,945	12,659	25,604	102·26
3	Násik	5,879	154	455,045	448,599	903,644	38,962	43·12	20,712	19,977	40,689	103·68
4	Thána	3,576	246	456,673	424,235	880,908	29,650	33·66	12,654	11,736	24,390	107·82
5	Kolába	2,169	274	295,085	298,972	594,057	22,342	37·61	9,227	8,893	18,120	103·76
6	City of Bombay	22·5	41,483	629,854	333,509	963,363	21,207	22·01	21,089	17,468	38,557	127·07
	Central Registration District.											
7	Ahmednagar...	6,613	142	475,163	468,828	943,991	36,132	38·28	20,521	19,286	39,807	106·40
8	Poona	5,366	198	538,238	526,568	1,064,806	33,366	31·33	22,085	21,385	43,470	103·27
9	Sholápur	4,556	169	391,311	376,706	768,017	31,596	41·14	16,045	15,613	31,658	122·77
10	Satára	4,818	224	538,841	541,957	1,080,798	41,444	38·07	19,962	19,478	39,440	102·48
11	Ratnágiri	3,989	302	553,368	650,234	1,203,602	40,009	33·24	13,403	13,474	26,877	99·47
	Southern Registration District.											
12	Belgaum	4,613	204	478,458	463,490	941,948	38,930	41·33	17,106	17,046	34,152	100·35
13	Dhárwár	4,604	223	519,995	505,091	1,025,086	38,444	37·50	18,392	17,483	35,875	105·20
14	Bijápur	5,707	151	433,866	429,061	862,927	33,396	38·70	19,379	19,545	38,924	99·15
15	Kánara	3,946	109	220,065	210,369	430,434	15,020	34·89	7,305	6,780	14,085	107·74
	Gujarát Registration District.											
16	Surat	1,651	396	326,839	327,135	653,974	24,973	38·19	10,269	10,364	20,633	99·08
17	Broach	1,468	209	158,219	148,448	306,667	14,664	47·82	6,595	6,330	12,925	104·19
18	Kaira	1,596	433	370,174	321,468	691,642	30,205	43·67	13,659	12,610	26,269	108·32
19	Panch Mahális	1,606	201	165,902	156,751	322,653	12,654	39·22	4,272	4,231	8,503	100·97
20	Ahmedabad	3,824	216	432,124	395,213	827,337	30,380	36·72	20,809	20,387	41,196	102·07
	Sind Registration District.											
21	Karáchi	11,782	44	290,390	225,943	516,333	12,316	23·85	7,039	5,533	12,572	127·22
22	Hyderabad	8,034	129	571,180	465,035	1,036,215	17,136	16·54	11,470	8,867	20,337	129·36
23	Thar and Párkar	13,883	33	255,339	201,399	456,738	7,813	17·11	5,473	4,344	9,817	125·99
24	Lárkhána	5,053	131	359,207	301,621	660,828	17,401	26·33	7,566	6,442	14,008	117·45
25	Sukkur	5,585	103	312,732	260,803	573,535	14,115	24·61	5,806	5,002	10,808	116·07
26	Upper Sind Frontier ...	2,641	99	145,541	117,445	262,986	5,166	19·64	1,808	1,517	3,325	119·18
	Total for the Presidency...	122,978	159	10,188,455	9,398,928	19,587,383	684,890	34·97	351,264	331,946	683,210	105·82

1	2	9										10		
Number.	Districts.	DEATHS PER 1,000 OF POPULATION FROM							All causes.			MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.														
1	East Khándesh	6·96	·19	1·45	16·34	2·96	5·49	·23	15·85	49·22	49·73	49·47	34·85	33·59	34·23
2	West Khándesh	6 23	·29	·54	17·84	1·14	3·12	·25	14·63	44·13	44·05	44·09	33·45	31·77	32·62
3	Násik	5·17	·39	1·54	15·64	2·06	4·67	·32	15·24	44·51	44·53	45·03	35·30	33·43	34·38
4	Thána	1·54	·19	·30	16·50	1·13	1·19	·52	6·33	27·71	27·66	27·69	28·75	28·56	28·66
5	Kolába	2·76	·18	·50	15·42	2·05	1·01	·40	8·18	31·26	29·74	30·50	28·90	27·37	28·14
6	City of Bombay	1·85	1·00	1·78	3·66	4·65	12·27	·68	14·13	33·48	52·38	40·02	33·37	44·48	37·44
	Central Registration District.														
7	Ahmednagar	8 83	·05	·41	12·95	5·53	14·35	·26	9·79	43·19	41·14	42·17	29·68	27·23	28·55
8	Poona	7·13	·18	·96	16·63	7·53	3·79	·26	4·34	41·04	40·41	40·82	29·73	28·04	28 81
9	Sholápur	4·25	·32	·85	18·34	8·50	2·26	·31	6·39	41·00	41·44	41·22	31·71	30·64	31·17
10	Sátára	5·72	·16	2·34	13·02	5·54	1·23	·37	8·11	37·05	35·89	36·49	30·58	29·66	30·06
11	Ratnágiri	·54	·41	·08	12·53	3·18	1·92	·43	3·24	24·22	20·72	22·33	23·22	19·69	21·34
	Southern Registration District.														
12	Belgaum	4·80	·22	3·54	5·32	4·53	3·33	·43	14·08	35·75	36·78	36·26	31·32	33·38	33·35
13	Dhárwár	3·53	·47	2·52	7·89	1·70	3·98	·41	14·50	35·37	34·61	34·99	34·10	34·11	34·11
14	Bijápur	1·95	·18	12·88	10·98	3·79	3·01	·25	12·06	44·86	45·55	45·11	30·02	29·44	29·79
15	Kánara	1·14	·08	·45	13·35	2·51	1·21	·57	13·42	33·19	32·23	32·72	33·17	32·53	32·84
	Gujarát Registration District.														
16	Surat	·41	·61	·67	17·46	·91	7·21	·31	3·97	31·42	31·68	31·55	28·56	27·48	28·02
17	Broach	...	·14	·01	25·72	1·14	6·92	·38	7·84	41·68	42·63	42·15	34·61	35·27	34·94
18	Kaira	·52	·13	·01	13·69	2·24	11·03	·55	9·81	36·90	39·23	37·98	33·68	35·93	34·75
19	Panch Mahális	·16	·10	...	20·39	·48	·91	·39	3·93	25·75	26·99	26·35	22·02	22·26	22·14
20	Ahmedabad	·61	·13	·02	33·78	1·69	6·31	·44	6·81	48·16	51·59	49·79	35·93	36·63	36·27
	Sind Registration District.														
21	Karáchi	2·94	·97	2·15	10·54	·51	1·81	·49	4·95	24·24	24·49	24·35	21·57	22·08	21·29
22	Hyderabad	3·12	·53	·01	14·11	·35	·60	·19	·72	20·08	19·07	19·63	16·98	16·52	16·77
23	Thar and Párkar	1·05	·89	...	18·89	·06	·12	·21	·26	21·43	21·57	21·50	18·10	17·98	18·05
24	Lárkhána	1·24	·16	·00	18·68	·04	·05	·35	·68	21·03	21·31	21·20	20·93	20·92	20·92
25	Sukkur	·84	·17	·01	15·54	·14	·11	·27	1·77	18·57	19·18	18·84	22·41	23·01	22·69
26	Upper Sind Frontier ...	·71	·08	...	11·29	·05	·01	·23	·27	12·42	12·92	12·64	14·85	15·73	15·24
	Total for the Presidency...	3·29	·32	1·48	14·62	2·91	3·61	·37	8·28	34·48	35·32	34·88	29·39	29·01	29·20

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1912.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	East Khándesh	2,833	2,681	2,726	2,702	3,915	3,558	6,036	10,018	7,338	3,941	2,952	2,469	51,169	1
2	West Khándesh	1,645	1,518	1,741	1,575	1,719	1,582	3,209	4,788	3,032	1,629	1,659	1,507	25,604	2
3	Násik	3,775	2,610	2,936	3,762	2,865	2,912	4,939	5,228	3,757	2,885	2,673	2,547	40,689	3
4	Thána	2,487	1,928	2,108	2,059	1,999	2,061	1,909	2,304	1,872	1,658	1,846	2,159	24,390	4
5	Kolába	1,300	1,341	1,481	1,337	1,558	1,385	1,892	2,010	1,491	1,199	1,381	1,355	18,120	5
6	City of Bombay	3,225	2,930	3,512	3,913	3,474	3,933	3,292	3,344	2,896	2,694	2,629	2,715	38,557	6
	Central Registration District.														
7	Ahmednagar	1,890	1,492	1,688	2,078	2,718	3,823	5,320	6,204	5,433	4,386	2,634	2,091	39,897	7
8	Poona	2,566	1,926	2,283	2,752	3,110	5,594	6,798	5,310	4,116	3,574	2,887	2,604	43,470	8
9	Sholápur	2,054	1,570	1,746	1,983	3,117	3,734	3,746	3,817	3,099	2,694	2,202	1,896	31,658	9
10	Sátára	2,657	1,996	2,092	2,165	3,874	6,016	4,656	3,868	3,523	3,600	2,679	2,334	39,440	10
11	Ratnágiri	2,500	2,079	2,178	2,095	2,228	1,955	2,534	2,581	2,050	1,996	2,214	2,467	26,877	11
	Southern Registration District.														
12	Belgaum	2,765	2,207	2,260	2,337	4,505	5,047	3,166	2,772	2,535	2,377	2,284	1,897	34,152	12
13	Dhárwar	4,298	3,021	3,185	3,858	4,122	2,703	2,324	2,257	2,229	2,584	2,750	2,544	35,875	13
14	Bijápur	4,898	2,739	2,253	1,804	2,178	2,876	3,031	4,004	4,723	4,596	3,258	2,564	38,924	14
15	Kánara	1,432	1,327	1,342	1,107	1,173	1,022	1,105	1,403	1,066	990	988	1,130	14,085	15
	Gujarát Registration District.														
16	Surat	1,728	1,712	2,050	1,835	1,764	1,671	1,674	1,840	1,727	1,502	1,561	1,569	20,633	16
17	Broach	833	884	1,195	1,170	1,100	963	1,132	1,354	1,265	1,199	1,021	809	12,925	17
18	Kaira	1,571	1,642	2,179	2,167	1,940	1,694	1,793	2,912	3,109	2,847	2,549	1,866	26,269	18
19	Panch Mahás	647	601	737	543	474	441	506	1,062	1,248	930	798	516	8,503	19
20	Ahmedabad	2,064	2,216	3,079	3,313	2,922	2,209	2,987	4,644	4,849	4,798	4,573	3,542	41,196	20
	Sind Registration District.														
21	Karáchi	976	1,055	1,239	1,084	938	821	2,105	1,222	904	696	746	786	12,572	21
22	Hyderabad	1,631	1,403	1,673	1,709	1,451	1,431	4,265	1,822	1,070	1,124	1,264	1,489	20,337	22
23	Thar and Párkar	1,178	1,024	1,350	1,159	838	584	901	543	351	569	597	723	9,817	23
24	Lárkhána	1,325	942	1,031	836	915	1,194	1,559	960	894	1,432	1,585	1,335	14,008	24
25	Sukkur	816	679	767	771	869	972	1,310	1,035	814	975	893	907	10,808	25
26	Upper Sind Frontier ...	298	210	263	210	210	252	349	259	308	351	325	290	3,325	26
	Total for the Presidency ...	53,872	43,738	49,044	50,324	55,976	60,433	72,538	77,561	65,889	57,226	50,893	45,911	683,210	
	Ratio of deaths per 1,000 in each month... ...	2·75	2·23	2·50	2·57	2·86	3·09	3·70	3·96	3·35	2·92	2·60	2·35	34·88	

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	East Khándesh	6,455	5,594	7,475	7,611	1,820	1,769	830	924
2	West Khándesh	3,482	3,048	3,851	3,849	861	838	398	342
3	Násik	5,236	4,305	4,863	5,004	1,298	1,193	697	749
4	Thána	2,680	2,241	2,037	2,099	727	642	458	408
5	Kolába	2,224	1,878	1,348	1,506	516	516	297	300
6	City of Bombay	4,962	4,604	2,269	2,530	549	691	618	593
	Central Registration District.								
7	Ahmednagar	4,528	3,699	4,437	4,341	1,210	1,201	587	565
8	Poona	4,986	4,141	4,767	4,616	1,214	1,190	671	732
9	Sholápur	4,474	3,776	3,819	3,725	718	725	377	489
10	Sátára	4,275	3,437	4,249	4,325	1,405	1,420	755	746
11	Ratnágiri	2,251	1,952	1,954	2,151	612	665	364	396
	Southern Registration District.								
12	Belgaum	3,030	2,591	3,330	3,675	1,364	1,454	850	821
13	Dhárwár	3,638	2,920	3,148	3,314	1,235	1,163	845	792
14	Bijápur	2,839	2,476	3,404	3,608	1,585	1,651	1,086	1,147
15	Kánara	1,693	1,466	686	659	262	291	178	178
	Gujarát Registration District.								
16	Surat	2,628	2,377	2,207	2,403	607	564	237	285
17	Broach	2,079	1,702	2,059	2,073	303	296	103	83
18	Kaira	3,851	3,721	4,351	3,868	508	440	242	151
19	Panch Mahals	1,172	1,128	1,191	1,199	229	232	72	63
20	Ahmedabad	5,630	5,307	6,293	6,586	851	768	299	331
	Sind Registration District.								
21	Karáchi	1,770	1,458	1,140	1,115	487	420	314	242
22	Hyderabad	1,873	1,543	1,562	1,407	940	785	621	435
23	Thar and Párkar	950	894	814	729	398	323	284	201
24	Lárkhána	1,701	1,458	866	749	580	471	439	315
25	Sukkur	1,549	1,357	786	767	317	266	188	152
26	Upper Sind Frontier ...	410	348	273	221	128	93	87	57
	Total for the Presidency ...	80,366	69,421	73,179	74,130	20,764	20,067	11,897	11,497
	Population according to Census of 1911	333,992	333,705	1,033,360	1,066,128	1,286,872	1,204,044	1,129,222	893,170
	Ratios per 1,000 living ...	240·62	208·03	70·81	69·53	16·13	16·67	10·54	12·87

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1912.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	No.
495	744	1,195	1,763	1,398	1,525	1,422	1,107	1,385	1,093	3,198	3,366	1
214	307	672	928	475	879	780	576	697	511	1,245	1,881	2
493	713	1,311	1,758	1,634	1,507	1,507	1,063	1,304	1,059	2,369	2,626	3
361	439	1,075	1,497	1,421	1,259	1,282	816	1,097	899	1,516	1,436	4
266	286	765	931	873	815	880	598	833	684	1,225	1,379	5
1,485	1,299	3,743	2,691	2,520	1,435	1,806	914	1,485	993	1,702	1,718	6
574	824	1,262	1,595	1,392	1,296	1,592	1,150	1,832	1,538	3,107	3,077	7
728	1,114	1,678	2,035	1,834	1,652	1,865	1,461	1,720	1,588	2,622	2,856	8
469	570	820	1,134	939	904	954	833	1,031	917	2,444	2,540	9
630	866	1,296	1,576	1,386	1,369	1,439	1,149	1,516	1,260	3,011	3,330	10
518	608	965	1,037	1,104	1,136	1,096	882	1,399	1,012	3,140	3,635	11
577	528	1,280	1,658	1,363	1,384	1,468	1,147	1,315	1,069	2,529	2,719	12
628	659	1,601	2,036	1,666	1,586	1,663	1,218	1,524	1,236	2,444	2,559	13
765	821	1,801	2,078	1,556	1,591	1,812	1,528	1,751	1,444	2,780	3,201	14
295	305	732	906	898	741	871	545	745	573	1,035	1,116	15
259	280	608	993	749	856	735	554	764	570	1,475	1,482	16
99	95	292	416	290	383	341	282	423	264	606	736	17
225	182	749	772	775	763	763	624	859	617	1,336	1,472	18
70	74	208	265	291	260	282	208	296	228	461	574	19
497	517	1,427	1,542	1,327	1,212	1,381	1,076	1,412	1,141	1,652	1,907	20
301	244	858	721	680	452	532	262	379	188	578	431	21
538	557	1,416	1,394	1,399	950	1,227	666	863	366	1,031	764	22
276	194	705	590	610	441	502	290	404	232	530	450	23
414	378	704	803	828	679	727	537	525	373	782	679	24
203	240	501	612	537	444	560	319	442	251	723	594	25
88	71	139	173	170	144	173	122	114	104	226	184	26
11,378	12,915	27,803	31,904	28,385	25,663	27,660	19,927	26,065	20,210	43,767	46,212	
852,854	752,848	1,903,139	1,801,211	1,562,195	1,370,275	1,064,455	949,249	611,654	564,582	436,814	476,708	
13·34	17·15	14·61	17·71	18·17	18·73	27·27	20·99	42·61	35·79	100·19	96·94	

ANNUAL FORM No. V.—DEATHS *registered according to* CLASSES

1	2	3						
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.						
		Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	East Khándesh	99,521	902,131	9,361	748	371	22,082	1,034,214
2	West Khándesh	31,323	474,200	3,796	586	233	70,542	580,680
3	Násik	47,705	843,705	7,902	1,867	840	1,625	903,644
4	Thána	41,979	786,925	2,985	43,341	5,105	573	880,908
5	Kolába	28,876	560,266	1,411	1,149	303	2,052	594,057
6	City of Bombay	179,346	664,042	20,460	41,273	50,931	7,311	963,363
	Central Registration District.							
7	Ahmednagar	47,959	855,676	15,284	23,622	222	1,228	943,991
8	Poona	48,936	991,738	11,731	8,280	2,695	1,476	1,064,806
9	Sholápur	55,377	703,215	7,643	1,412	334	36	768,017
10	Sátára	36,688	1,028,176	14,883	815	209	27	1,080,798
11	Ratnágiri	85,303	1,110,594	1,913	5,678	46	68	1,203,602
	Southern Registration District.							
12	Belgaum	77,075	817,797	41,533	5,313	159	71	941,948
13	Dhárwár	136,943	872,885	10,413	4,526	218	101	1,025,086
14	Bijápur	101,069	757,542	3,235	1,052	28	1	862,927
15	Kánara	28,731	383,624	1,251	16,729	14	85	430,434
	Gujarát Registration District.							
16	Surat	55,394	571,834	9,821	1,050	11,783	4,092	653,974
17	Broach	67,752	192,964	3,053	1,052	2,770	39,076	306,667
18	Kaira	63,280	598,165	6,609	23,490	81	17	691,642
19	Panch Mahals	22,273	274,339	1,542	1,810	204	22,485	322,653
20	Ahmedabad	92,018	693,209	35,899	3,584	1,639	988	827,337
	Sind Registration District.							
21	Karáchi	396,334	111,748	650	3,625	2,202	1,774	516,333
22	Hyderabad	781,219	246,008	171	201	96	8,520	1,036,215
23	Thar and Párkar	254,218	196,793	524	47	6	5,150	456,738
24	Lárkhána	557,517	101,687	1	21	6	1,596	660,828
25	Sukkur	414,671	155,156	3	207	96	3,402	573,535
26	Upper Sind Frontier	235,970	26,495	...	10	5	506	262,986
	Total for the Presidency ...	3,987,477	14,920,914	212,074	191,488	80,596	194,884	19,587,383

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

in the Districts of the BOMBAY PRESIDENCY *during the year 1912.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
3,566	47,555	30	16	...	2	51,169	35·83	52·71	3·20	21·39	...	·09	49·47
1,067	24,522	9	5	1	...	25,604	34·06	51·71	2·37	8·53	4·29	...	44·09
1,924	38,664	55	39	5	2	40,689	40·33	45·83	6·96	20·89	5·95	1·23	45·03
1,268	22,049	27	955	75	16	24,390	30·21	28·02	9·05	22·03	14·69	27·92	27·69
775	17,252	7	29	1	56	18,120	26·84	30·79	4·96	25·24	3·30	27·29	30·50
9,089	24,876	1,414	1,583	1,313	282	38,557	50·68	37·46	69·11	38·35	25·78	38·57	40·02
1,763	37,722	57	95	6	164	39,807	36·76	44·08	3·73	4·02	27·03	133·55	42·17
1,816	41,397	23	149	37	48	43,470	37·11	41·74	1·96	18·10	13·73	32·52	40·82
2,072	29,435	122	18	7	4	31,658	37·41	41·86	15·96	12·75	20·96	111·11	41·22
1,204	37,824	385	8	2	17	39,440	32·82	36·79	25·87	9·82	9·57	629·63	36·49
2,114	24,651	17	94	...	1	26,877	24·78	22·20	8·89	16·56	...	14·71	22·33
2,640	29,945	1,375	192	...	...	34,152	34·25	36·62	33·11	36·10	...	...	36·26
4,858	30,613	317	85	2	...	35,875	35·47	35·07	30·44	18·78	9·17	...	34·99
4,076	34,748	95	5	...	...	38,924	40·33	45·96	29·37	4·75	...	...	45·11
935	12,646	47	457	...	...	14,085	32·54	32·96	37·57	27·32	...	...	32·72
1,237	16,628	195	21	310	2,242	20,633	22·33	29·08	19·86	20·00	26·31	547·90	31·55
2,609	8,603	60	13	68	1,572	12,925	38·51	44·58	19·65	12·36	24·55	40·23	42·15
2,430	23,482	111	239	1	6	26,269	38·40	39·26	16·80	10·17	12·35	352·94	37·98
531	5,532	20	9	1	2,410	8,503	23·84	20·16	12·97	4·97	4·90	107·18	26·35
4,593	35,155	1,287	56	18	87	41,196	49·91	50·71	35·85	15·62	10·98	88·06	49·79
7,820	4,591	...	99	44	18	12,572	19·72	41·08	...	27·31	19·98	10·15	24·35
13,584	6,750	...	2	1	...	20,337	17·39	27·44	...	9·95	10·42	...	19·63
5,158	4,632	21	2	...	4	9,817	20·29	23·54	40·08	42·55	...	·78	21·50
11,683	2,319	...	2	...	4	14,008	20·96	22·81	...	95·24	...	2·51	21·20
6,488	4,289	2	2	...	27	10,808	15·64	27·64	666·67	9·66	...	7·94	18·84
2,854	468	1	...	...	2	3,325	12·09	17·66	...	...	...	3·95	12·64
98,154	566,348	5,677	4,175	1,892	6,964	683,210	24·62	37·96	26·77	21·81	23·47	35·73	34·88

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
											Inju
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	East Khándesh ...	986,978	6,921	193	1,326	16,649	2,866	5,826	9	6	191
2	West Khándesh ...	538,084	3,512	137	270	10,089	564	1,559	4	3	78
3	Násik	852,916	4,271	191	1,092	13,527	1,623	3,853	4	7	198
4	Thána	829,832	1,218	156	222	14,263	819	893	29	20	254
5	Kolába	575,791	1,582	94	235	9,028	1,165	560	6	2	163
	Central Registration District.										
6	Ahmednagar ...	888,096	3,123	51	380	11,650	5,128	3,875	7	6	199
7	Poona	889,808	7,016	134	297	14,884	6,032	3,119	9	3	196
8	Sholápur	660,338	2,810	71	648	11,303	5,324	1,180	5	3	158
9	Sátára	1,045,572	5,682	168	2,219	13,717	5,768	1,261	17	17	266
10	Ratnágiri	1,170,486	646	477	67	14,728	3,750	2,215	12	7	229
	Southern Registration District.										
11	Belgaum	880,022	4,279	155	3,140	4,807	4,056	2,833	26	16	304
12	Dhárwár	892,969	3,331	275	1,712	7,689	1,498	3,406	30	27	249
13	Bijápur	818,064	1,590	159	10,956	9,346	3,176	2,344	8	7	159
14	Kánara	402,046	490	33	192	5,563	1,017	479	11	5	196
	Gujarát Registration District.										
15	Surat	523,269	155	130	409	10,557	407	3,836	9	10	144
16	Broach	254,323	...	41	2	7,357	276	1,480	1	2	55
17	Kaira	632,214	192	87	1	8,538	1,338	6,841	9	18	270
18	Panch Mahals ...	291,248	4	24	...	6,121	128	239	3	5	81
19	Ahmedabad ...	578,612	133	50	8	20,950	765	1,252	7	21	189
	Sind Registration District.										
20	Karáchi	369,818	1,363	489	1	3,659	51	81	1	2	84
21	Hyderabad... ...	961,192	3,122	317	5	13,235	129	115	10	7	111
22	Thar and Párkar ...	452,792	480	374	...	8,431	26	45	3	...	55
23	Lárkhána	644,762	803	100	1	11,968	27	18	16	7	153
24	Sukkur	484,675	416	69	...	6,979	54	22	6	3	101
25	Upper Sind Frontier.	251,646	186	20	...	2,328	11	3	6	4	39
	Total of Districts ...	16,850,573	58,525	3,995	23,183	257,816	45,988	46,885	248	208	4,128
	B.—TOWNS.										
	East Khándesh District.										
1	Jalgaon	17,195	58	1	124	71	48	143	...	...	9
2	Chopda	17,008	84	...	...	111	23	100	...	2	5
3	Nasirabad	13,033	139	...	51	70	121	109	...	...	1
	West Khándesh District.										
4	Dhulia	30,757	61	23	43	158	65	222	...	2	19
5	Nandurbár... ...	11,839	42	10	2	163	31	32	...	...	5

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1912.*

		11	12	13										14
RIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.								From all Causes.		
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
17	223	15,759	49,263	7·01	·20	1·34	16·87	2·91	5·39	·23	15·97	49·92	32·79	1
31	116	7,801	23,998	6·53	·26	·51	18·65	1·04	2·89	·21	14·50	44·59	33·42	2
42	251	12,699	37,507	5·13	·23	1·31	16·24	1·95	4·62	·30	15·25	45·03	33·80	3
126	429	4,850	22,850	1·47	·19	·27	17·18	·99	1·08	·52	5·84	27·54	28·06	4
59	230	4,636	17,530	2·75	·16	·41	15·68	2·02	·97	·40	8·05	30·44	28·25	5
25	237	9,084	38,523	9·15	·06	·43	13·12	5·77	4·36	·27	10·23	43·38	28·87	6
29	237	3,532	35,251	7·88	·15	·33	16·73	6·78	3·51	·27	3·96	39·61	27·64	7
19	185	3,514	25,035	4·26	·10	·98	17·12	8·06	1·79	·28	5·32	37·91	28·32	8
76	376	8,595	37,981	5·62	·16	2·12	13·12	5·51	1·21	·36	8·22	36·32	30·08	9
263	511	3,780	26,174	·55	·41	·06	12·58	3·20	1·89	·44	3·23	22·36	21·32	10
33	379	12,599	32,248	4·86	·17	3·57	5·46	4·61	3·22	·43	14·32	36·64	31·17	11
29	335	12,642	30,888	3·73	·31	1·92	8·61	1·68	3·81	·38	14·16	34·59	33·73	12
24	198	9,638	37,407	1·94	·19	13·39	11·42	3·88	2·87	·24	11·78	45·72	31·75	13
27	239	5,486	13,499	1·22	·08	·48	13·84	2·53	1·19	·59	13·64	33·58	35·44	14
23	186	1,702	17,382	·30	·25	·78	20·18	·78	7·33	·35	3·25	33·22	29·20	15
19	77	1,700	10,933	...	·16	·01	28·93	1·09	5·82	·30	6·68	42·99	36·02	16
44	347	5,969	23,313	·30	·14	·00	13·51	2·12	10·82	·55	9·44	36·88	34·41	17
25	114	963	7,593	·01	·08	...	21·02	·44	·82	·39	3·31	26·07	22·44	18
53	270	1,605	25,033	·23	·09	·01	36·52	1·34	2·18	·47	2·80	43·64	31·08	19
58	145	264	6,053	3·69	1·32	·00	9·89	·14	·22	·39	·71	16·37	12·84	20
54	182	285	17,390	3·25	·33	·00	13·77	·13	·12	·19	·30	18·09	15·11	21
38	96	115	9,567	1·06	·83	...	18·62	·06	·10	·21	·25	21·13	17·83	22
45	221	245	13,383	1·25	·16	·00	18·56	·04	·03	·34	·38	20·76	20·59	23
20	130	87	7,757	·86	·14	...	14·40	·11	·05	·27	·18	16·01	20·41	24
9	58	24	3,130	·74	·08	...	11·24	·05	·01	·23	·10	12·44	14·84	25
1,188	5,772	12,574	569,688	3·47	·24	1·37	15·30	2·73	2·78	·34	7·57	33·80	27·69	
1	10	267	722	3·37	·05	7·21	4·13	2·79	8·32	·58	15·53	41·99	31·93	1
...	7	167	492	4·94	...	...	6·53	1·36	5·88	·41	9·81	28·93	18·92	2
...	1	201	692	10·67	...	3·92	5·37	9·28	8·36	·07	15·42	53·09	36·66	3
...	21	576	1,169	1·98	·75	1·40	5·14	2·11	7·21	·68	18·73	38·01	27·42	4
4	9	148	437	3·55	·84	·17	13·77	2·62	2·70	·76	12·50	36·91	30 06	5

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Násik District.										
6	Násik	33,163	229	1	75	211	127	185	2	...	20
7	Yeola	16,275	21	...	1	150	50	128	1	...	4
8	Málegaon	19,542	149	158	222	246	58	50	...	...	4
9	Devláli Cantonment.	1,748	2	1	...	3	5	4	...	...	...
	Thána District.										
10	Thána	15,591	92	4	16	105	43	38	...	1	10
11	Bándra	22,855	45	5	27	49	99	67	...	2	9
12	Kalyán	12,600	1	...	...	117	31	48	...	...	3
	Kolába District.										
13	Alibág	3,358	9	6	11	42	8	16	...	...	3
14	Panvel	7,744	...	4	49	25	17	20	...	...	3
15	Mahád	7,164	51	1	...	69	26	3	...	1	2
16	City of Bombay ...	963,363	1,779	966	1,714	3,523	4,484	11,818	47	22	583
	Ahmednagar District.										
17	Ahmednagar ...	33,878	164	...	3	389	57	18	1	...	4
18	Sangamner... ...	14,269	47	...	...	156	36	17	...	...	1
19	Ahmednagar Cantonment.	7,748	5	...	...	31	5	27	1	...	...
	Poona District.										
20	Poona	126,201	420	52	483	2,249	1,823	697	...	...	30
21	Junnar	8,820	103	...	1	93	25	18	...	...	4
22	Poona Cantonment	30,958	43	...	120	396	60	139	...	...	2
23	Kirkee do. ...	9,019	6	3	124	91	75	68	...	...	1
	Sholápur District.										
24	Sholápur	61,032	281	60	2	1,695	784	351	5	3	27
25	Bársi	18,097	26	19	...	392	113	92	...	...	5
26	Pandharpur ...	28,550	151	94	2	692	306	111	...	...	14
	Sátára District.										
27	Sátára	18,665	31	6	146	245	161	50	1	...	12
28	Wái	5,333	150	...	128	27	24	8	...	...	3
29	Karád	11,288	116	3	41	79	41	6	...	...	4
	Ratnágiri District.										
30	Ratnágiri	15,822	6	11	...	164	44	19	...	...	4
31	Vengurla	17,294	...	3	31	192	35	71	...	...	2

VI—continued.

		11	12	13									14
RIES.				Ratio of Deaths per 1,000 of Population.									
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	22	645	1,495	6·91	·03	2·26	6·36	3·83	5·58	·66	19·45	45·08	55·05	6
4	9	246	605	1·29	...	·06	9·22	3·07	7·86	·55	15·12	37·18	28·33	7
...	4	158	1,045	7·62	8·09	11·36	12·59	2·96	2·56	·20	8·09	53·47	...	8
...	...	22	37	1·14	·57	...	1·72	2·86	2·28	...	12·59	21·16	22·44	9
2	13	221	532	5·90	·26	1·03	6·73	2·76	2·44	·83	14·17	34·12	34·91	10
...	11	394	697	1·97	·22	1·18	2·14	4·32	2·93	·48	17·22	30·46	29·44	11
...	3	111	311	·08	...	...	9·28	2·46	3·81	·24	8·81	24·68	33·17	12
...	3	72	167	2·68	1·79	3·28	12·50	2·38	4·77	·89	21·44	49·73	29·05	13
...	3	114	232	...	·52	6·33	3·23	2·20	2·58	·38	14·72	29·95	28·15	14
...	3	38	191	7·12	·14	...	9·63	3·63	·42	·42	5·30	26·66	20·09	15
3	655	13,618	38,557	1·85	1·00	1·78	3·66	4·65	12·27	·68	14·13	40·02	37·44	16
...	5	67	873	4·84	...	0·09	11·48	1·68	5·55	·15	1·98	25·77	28·31	17
...	1	61	318	3·29	...	...	10·93	2·52	1·19	·17	4·28	22·28	18·41	18
...	1	24	93	·65	...	...	4·00	·65	3·48	·13	3·09	12·01	14·68	19
...	30	783	6,537	3·33	·41	3·83	17·82	14·45	5·52	·24	6·20	51·80	38·16	20
...	4	34	278	11·68	...	·11	10·54	2·84	2·04	·45	3·86	31·52	21·07	21
...	2	205	965	1·39	...	3·88	12·79	1·94	4·49	·06	6·62	31·17	26·49	22
...	1	71	439	·67	·33	13·75	10·08	8·32	7·54	·11	7·87	48·67	25·60	23
...	35	838	4,046	4·60	·98	·03	27·77	12·85	5·75	·57	13·73	66·29	44·83	24
...	5	261	908	1·44	1·05	...	21·66	6·24	5·08	·28	14·42	50·17	44·20	25
...	14	299	1,669	5·29	3·29	·07	24·24	10·72	3·89	·49	10·47	58·46	49·07	26
3	16	93	748	1·66	·32	7·83	13·13	8·63	2·67	·86	4·98	40·08	32·14	27
...	3	49	389	28·13	...	24·00	5·06	4·50	1·50	·57	9·19	72·94	32·09	28
...	4	32	322	10·33	·27	3·66	7·04	3·65	·53	·35	2·85	28·68	26·51	29
2	6	36	286	·38	·70	...	10·36	2·78	1·20	·38	2·28	18·08	16·59	30
...	2	83	417	...	·17	1·79	11·10	2·02	4·11	·12	4·80	24·11	26·26	31

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Belgaum District.										
32	Belgaum	31,451	140	43	184	110	64	165	...	...	6
33	Gokák	7,326	83	...	7	22	83	44	2	...	5
34	Athni	13,849	18	10	...	36	92	61	...	...	5
35	Belgaum Cantonment.	9,300	2	3	4	32	25	35	...	...	4
	Dhárwár District.										
36	Dhárwár	29,317	65	113	52	98	62	170	1	...	14
37	Hubli	61,440	86	10	405	184	103	302	3	3	28
38	Gadag-Bettigeri ...	30,429	48	77	384	100	71	130	2	4	18
39	Ránebennur ...	10,931	87	4	32	18	13	73	...	...	9
	Bijápur District.										
40	Bijápur	27,569	63	...	10	69	39	157	...	...	13
41	Bágalkot	17,294	83	...	148	59	52	95	...	...	8
	Kánara District.										
42	Kárwár	18,045	...	...	...	124	83	23	...	...	6
43	Kumta	10,343	...	2	...	58	31	19	...	...	1
	Surat District.										
44	Surat	114,733	9	246	13	778	156	762	...	...	14
45	Bulsár	15,972	105	20	19	83	32	117	1	...	3
	Broach District.										
46	Broach	43,353	...	2	...	275	54	566	4	1	27
47	Jambusar	8,991	...	...	...	255	21	75	1	1	4
	Kaira District.										
48	Kaira	7,297	2	...	...	123	32	89	...	...	3
49	Nadiád	27,145	...	...	...	446	73	366	1	1	8
50	Borsad	11,860	...	...	5	151	57	190	...	...	5
51	Kapadvanj	13,126	165	5	2	214	47	144	...	...	9
	Panch Mahálś District.										
52	Godhra	22,102	45	5	...	133	14	44	2	...	3
53	Dohad	9,303	2	3	...	325	13	11	...	...	5
	Ahmedabad District.										
54	Ahmedabad ...	214,000	383	47	5	5,798	501	3,738	...	1	88
55	Gogha	2,958	...	8	1	81	24	34	...	...	...
56	Viramgám	20,769	...	...	...	573	47	115	1	...	4
57	Dholka	13,693	...	...	...	516	54	79	...	...	3
58	Ahmedabad Cantonment.	2,305	7	...	...	28	4	1	...	...	...

VI—*continued.*

		11	12	13										14
BIES.				Ratio of Deaths per 1,000 of Population.								From all Causes.		
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
...	6	280	992	4·45	1·37	5·85	3·50	2·03	5·23	·19	8·90	31·52	32·62	32
1	8	115	312	11·33	...	·96	3·00	4·50	6·01	1·09	15·70	42·59	56·86	33
2	7	175	399	1·30	·72	...	2·60	6·64	4·40	·51	12·64	28·81	36·61	34
...	4	96	201	·22	·32	·43	3·44	2·69	3·76	·43	10·32	21·61	19·25	35
...	15	413	988	2·21	3·85	1·77	3·34	2·11	5·79	·51	14·06	33·64	40·84	36
...	34	1,159	2,283	1·40	·16	6·59	2·99	1·68	4·92	·55	18·86	37·16	36·11	37
...	24	426	1,260	1·58	2·53	12·62	3·29	2·33	4·27	·79	13·99	41·41	34·44	38
...	9	220	456	7·96	·37	2·93	1·65	1·19	6·68	·82	20·13	41·72	40·21	39
...	13	467	818	2·29	...	·35	2·50	1·41	5·69	·47	16·94	29·67	27·84	40
...	8	304	699	1·91	...	8·56	3·41	3·01	5·49	·46	17·58	40·42	34·33	41
...	6	146	332	...	...	...	6·87	1·83	1·27	·33	8·09	18·40	19·65	42
...	1	143	254	...	·19	...	5·61	3·00	1·84	·10	13·83	24·56	30·06	43
...	14	785	2,763	·08	2·15	·11	6·78	1·36	6·64	·12	6·84	24·08	22·98	44
...	4	108	488	6·57	1·25	1·19	5·20	2·00	7·83	·25	6·76	30·55	28·41	45
3	35	567	1,599	...	·05	...	6·34	1·24	13·06	·81	15·38	36·88	30·16	46
...	6	36	393	...	...	...	28·36	2·34	8·34	·67	4·00	43·71	29·66	47
...	3	54	303	·27	...	...	16·86	4·38	12·20	·41	7·40	41·52	31·43	48
1	11	510	1,406	...	...	...	16·43	2·69	13·48	·41	18·79	51·80	44·50	49
2	7	109	519	...	...	·42	12·73	4·81	16·02	·59	9·19	43·76	36·74	50
...	9	142	728	12·57	·38	·15	16·30	3·58	10·97	·69	10·82	55·46	30·38	51
...	5	197	443	2·03	·23	...	6·02	·63	1·99	·23	8·91	20·04	15·11	52
1	6	107	467	·22	·32	...	34·93	1·40	1·18	·64	11·50	50·19	31·08	53
3	92	3,348	13,892	1·70	·22	·02	27·09	2·34	17·47	·43	15·65	64·92	51·99	54
...	...	79	227	...	2·71	·34	27·38	8·11	11·49	...	26·71	76·74	36·71	55
...	5	252	992	...	...	...	27·59	2·26	5·54	·24	12·13	47·76	37·34	56
...	3	349	1,001	...	...	...	37·68	3·94	5·77	·22	25·49	73·10	44·45	57
...	...	11	51	3·04	...	...	12·15	1·74	·43	...	4·77	22·13	9·68	58

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
											Injur
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*concluded.*										
	Karáchi District.										
59	Karáchi	146,515	156	13	1,107	1,781	211	851	2	...	101
	Hyderabad District.										
60	Hyderabad ...	75,023	107	230	2	1,383	238	510	...	...	19
	Thar and Párkar District.										
61	Umarkot	3,946	1	33	...	196	1	12	...	...	1
	Lárkhána District.										
62	Lárkhána	16,046	17	4	...	375	2	12	...	1	9
	Sukkur District.										
63	Shikárpur	53,944	8	18	5	1,225	6	16	1	...	5
64	Sukkur	34,916	56	9	...	711	18	26	...	...	19
	Upper Sind Frontier District.										
65	Jacobabad	11,340	1	...	...	141	3	...	...	...	3
	Total of Towns ...	2,736,810	5,980	2,336	5,801	28,505	11,051	23,877	79	45	1,243
	Total for the Presidency ...	19,587,383	64,505	6,331	28,984	286,321	57,039	70,712	327	253	5,371

N. B.—Districts A in this statement do not include the population or deaths of

VI—*concluded.*

		11	12	13										14
ries.				Ratio of Deaths per 1,000 of Population.								From all Causes.		No.
Snake-bite, or killed by wild beasts.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	
2	105	2,295	6,519	1·06	·09	7·56	12·16	1·44	5·81	·71	15·66	44·49	48·36	59
1	20	457	2,947	1·43	3·06	·03	18·43	3·17	6·80	·27	6·09	39·28	36·49	60
...	1	6	250	·25	8·36	...	49·67	·25	3·04	·25	1·52	63·35	32·54	61
...	10	205	625	1·06	·25	...	23·37	·12	·75	·62	12·78	38·95	35·71	62
...	6	718	2,002	·15	·33	·09	22·71	·11	·29	·11	13·31	37·11	40·17	63
1	20	209	1,049	1·60	·25	...	20·36	·52	·75	·57	5·99	30·04	29·98	64
...	3	47	195	·09	...	...	12·43	·26	...	·26	4·15	17·19	26·58	65
36	1,403	34,569	113,522	2·19	·85	2·12	10·42	4·04	8·72	·51	12·63	41·48	36·62	
1,224	7,175	162,143	683,210	3·29	·32	1·48	14·62	2·91	3·61	·37	8·28	34·88	29·20	

Towns B. In all the other statements "Districts" include Towns.

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1912.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Cholera were reported.	Number in each District.	Number from which deaths from Cholera were reported.													Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,438	496	...	...	...	8	69	448	2,156	3,721	797	3	...	...	3,387	3,815	7,202	6·49	7·44	6·96	·33	1
2	West Khándesh ...	10	10	1,096	291	...	...	...	...	59	143	1,274	1,749	385	4	1	...	1,715	1,900	3,615	5 84	6·61	6·23	·14	2
3	Násik	16	15	1,649	312	...	...	7	753	319	379	1,607	1,164	316	79	16	32	2,250	2,422	4,672	4·94	5·40	5·17	·76	3
4	Thána	12	11	1,643	106	6	...	...	107	205	299	201	238	8	3	13	195	685	671	1,356	1·50	1·58	1·54	·36	4
5	Kolába	11	10	1,461	161	41	33	1	22	155	157	470	467	186	97	15	43	781	861	1,642	2 64	2·88	2·76	·56	5
6	City of Bombay ...	1	1	1	1	98	6	3	24	121	958	281	149	29	20	11	79	1,202	577	1,779	1·91	1·73	1·85	·31	6
	Central Registration District.																								
7	Ahmednagar	14	14	1,348	482	...	...	2	52	218	1,213	1,664	2,297	1,737	1,026	121	9	4,159	4,180	8,339	8·75	8·92	8·83	·51	7
8	Poona	12	12	1,201	466	7	5	12	318	414	2,375	2,614	1,105	401	171	29	134	3,689	3,899	7,588	6·80	7·40	7·13	·61	8
9	Sholápur	10	10	718	240	...	...	...	15	520	1,045	629	725	209	57	49	19	1,633	1,635	3,268	4·17	4·34	4·25	1·26	9
10	Sátára	15	15	1,346	441	1	...	...	13	1,603	2,758	1,603	434	144	127	32	14	3,123	3,056	6,179	5·80	5·64	5·72	·58	10
11	Ratnágiri	10	9	1,311	62	16	...	9	7	...	45	275	187	27	26	42	18	279	373	652	·50	·57	·54	·13	11
	Southern Registration District.																								
12	Belgaum	12	12	1,070	352	...	...	46	208	1,577	1,980	517	175	14	3	1	1	2,291	2,231	4,522	4·79	4·81	4·80	1·15	12
13	Dhárwár	17	17	1,295	340	96	200	395	1,071	1,265	380	119	19	12	28	32	...	1,955	1,662	3,617	3·76	3·29	3·53	1·05	13
14	Bijápur...	10	10	1,122	149	...	...	...	...	148	688	230	332	194	139	5	...	886	800	1,686	2·04	1·86	1·95	1·39	14
15	Kánara...	13	10	1,265	63	15	24	19	107	139	49	38	85	14	...	...	...	252	238	490	1·26	1·13	1·14	·51	15
	Gujarát Registration District.																								
16	Surat	10	10	760	31	...	...	...	...	18	11	52	80	94	1	6	7	135	134	269	·41	·41	·41	·23	16
17	Broach...	8	...	409	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·08	17
18	Kaira	11	9	586	28	...	...	...	...	...	1	2	285	105	16	...	...	170	189	359	·46	·59	·52	·34	18
19	Panch Mahals ...	7	3	660	3	...	...	...	...	...	...	...	37	14	...	...	...	26	25	51	·16	·16	·16	·00	19
20	Ahmedabad	12	5	880	21	...	...	...	1	2	2	204	239	44	11	...	...	228	275	503	53	·70	·61	·12	20
	Sind Registration District.																								
21	Karáchi	11	10	665	246	...	...	...	...	...	2	1,382	207	17	...	11	...	883	636	1,519	3·04	2·81	2·94	·50	21
22	Hyderabad	15	14	1,529	425	...	...	...	...	...	99	2,688	440	2	...	...	...	1,891	1,338	3,229	3·31	2·88	3·12	·26	22
23	Thar and Párkar ...	12	11	957	97	...	...	...	...	...	3	390	67	...	...	21	...	312	169	481	1·22	·84	1·05	·01	23
24	Lárkhána	12	11	737	130	...	...	...	...	...	260	449	105	6	...	...	...	475	345	820	1·32	1·14	1·24	·38	24
25	Sukkur...	10	9	684	47	...	...	5	87	289	97	2	...	...	...	...	...	271	209	480	·87	·80	·84	·28	25
26	Upper Sind Frontier .	6	6	422	41	...	...	...	...	...	100	32	7	30	18	...	...	107	80	187	·74	·68	·71	·26	26
	Total for the Presidency.	293	260	26,253	5,026	280	273	494	2,706	6,237	13,323	19,224	14,886	4,717	1,891	423	551	32,785	31,720	64,505	3·22	3·37	3·29	·51	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1912.*

1	2	3		4		5												6			7		8			9	10
No.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.			Number of these Deaths among Children.		Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Small-pox were reported.	Number in each District.	Number from which deaths from Small-pox were reported.													Male.	Female.	Total.	Under 1 year.	Under 10 years.	Male.	Female.	Total.		
	Western Registration District.																										
1	East Khándesh ...	16	13	1,438	59	3	2	22	36	38	20	12	5	6	8	13	29	90	104	194	69	117	·17	·20	·19	·29	1
2	West Khándesh ...	10	9	1,096	47	...	16	23	15	7	8	8	3	12	31	45	78	92	170	45	107	·27	·32	·29	·23	2
3	Násik	16	01	1,649	56	139	67	42	41	17	14	4	3	7	4	5	8	172	179	351	114	215	·38	·40	·39	·20	3
4	Thána	12	10	1,643	42	4	4	9	21	30	19	15	13	6	2	11	31	88	77	165	48	105	·19	·18	·19	·20	4
5	Kolába	11	10	1,461	44	3	4	5	7	7	18	13	13	11	10	7	7	54	51	105	52	42	·18	·17	·18	·40	5
6	City of Bombay ...	1	1	1	1	53	112	228	247	170	84	44	15	4	4	...	5	530	436	966	275	312	·84	1·31	1·00	·63	6
	Central Registration District.																										
7	Ahmednagar	14	10	1,348	33	1	1	8	8	4	3	3	3	1	1	2	16	26	25	51	19	26	·05	·05	·05	·11	7
8	Poona	12	9	1,201	43	9	7	17	14	21	24	45	17	5	10	9	11	81	108	189	60	70	·15	·21	·18	·18	8
9	Sholápur	10	10	718	37	10	27	53	47	50	16	12	16	8	2	1	2	103	141	244	50	98	·26	·37	·32	·15	9
10	Sátára	15	13	1,346	47	13	16	34	19	13	26	17	8	1	4	4	22	81	96	177	74	54	·15	·18	·16	·05	10
11	Ratnágiri	10	10	1,311	144	42	43	68	83	69	80	44	22	13	7	8	12	234	257	491	127	226	·42	·40	·41	·22	11
	Southern Registration District.																										
12	Belgaum	12	11	1,070	57	8	18	22	17	29	27	13	9	5	6	21	36	94	117	211	62	86	·20	·23	·22	·77	12
13	Dhárwár...	17	16	1,295	113	73	77	59	59	55	59	35	27	8	8	8	11	247	232	479	135	213	·48	·46	·47	·10	13
14	Bijápur	10	8	1,122	47	17	10	12	10	20	16	8	7	6	13	14	26	79	80	159	52	71	·18	·19	·18	·07	14
15	Kánara	13	10	1,265	19	6	1	1	4	2	2	5	6	2	2	2	2	21	14	35	6	4	·10	·06	·08	·58	15
	Gujarát Registration District.																										
16	Surat	10	10	760	38	11	61	96	124	66	27	11	2	3	...	1	...	203	193	396	148	215	·62	·59	·61	·11	16
17	Broach	8	7	409	16	...	4	8	12	10	8	...	1	...	...	...	5	21	22	43	11	28	·13	·15	·14	·02	17
18	Kaira	11	6	586	20	7	16	43	12	2	12	...	...	...	...	...	...	56	36	92	49	31	·15	·11	·13	·06	18
19	Panch Mahals	7	6	660	14	3	3	5	11	...	1	2	1	...	...	...	6	18	14	32	9	16	·11	·09	·10	·06	19
20	Ahmedabad	12	6	880	28	17	21	27	21	10	6	2	...	...	...	...	1	58	47	105	31	61	·13	·12	·13	·39	20
	Sind Registration District.																										
21	Karáchi	11	11	665	125	112	110	134	79	30	22	4	2	...	2	4	3	297	285	502	74	154	1·02	·91	·97	·40	21
22	Hyderabad	15	14	1,529	64	77	87	53	104	48	50	22	18	4	...	17	67	287	260	547	61	150	·59	·56	·53	·18	22
23	Thar and Párkar ...	12	11	957	106	59	87	117	71	23	9	2	1	5	10	8	10	242	165	407	44	86	·95	·82	·89	·06	23
24	Lárkhána...	12	10	737	32	15	22	6	7	28	13	8	...	...	1	1	3	67	37	104	5	16	·19	·12	·16	·07	24
25	Sukkur	10	9	684	26	2	...	11	13	7	15	2	2	2	11	29	53	44	96	27	25	·17	·17	·17	·05	25
26	Upper Sind Frontier ...	6	4	422	12	...	1	2	4	6	3	1	1	...	...	1	1	16	4	20	...	1	·11	·03	·08	·08	26
	Total for the Presidency.	293	244	26,253	1,272	684	817	1,099	1,086	767	577	332	194	100	108	179	388	3,295	3,036	6,331	1,647	2,532	·32	·32	·32	·20	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVERS *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1912.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from fevers were reported.	Number in each District.	Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,438	1,341	920	840	990	1,045	1,615	1,262	1,481	2,416	2,509	1,777	1,167	879	8,366	8,535	16,901	16·04	16·64	16·34	11·97	1
2	West Khándesh ...	10	10	1,096	1,064	753	634	843	755	739	665	938	1,365	1,262	799	887	725	5,218	5,142	10,360	17·79	17·89	17·84	16·21	2
3	Násik	16	16	1,649	1,424	1,380	943	1,219	1,312	1,088	968	1,179	1,396	1,315	1,202	1,176	964	7,186	6,951	14,137	15·79	15·49	15·64	13·10	3
4	Thána	12	12	1,643	1,563	1,710	1,266	1,364	1,181	1,134	1,037	899	1,259	1,133	1,037	1,212	1,242	7,470	7,064	14,534	16·36	16·65	16·50	17·98	4
5	Kolába	11	11	1,461	1,351	1,062	775	901	768	792	641	660	746	685	603	733	798	4,575	4,589	9,164	15·50	15·32	15·42	16·24	5
6	City of Bombay ...	1	1	1	1	311	276	310	271	262	251	254	308	305	342	315	320	2,202	1,321	3,523	3·50	3·96	3·66	3·23	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,348	1,263	693	545	610	839	1,025	995	1,489	1,490	1,347	1,330	1,039	824	6,398	5,828	12,226	13·51	12·43	12·95	10·42	7
8	Poona	12	12	1,201	1,151	1,185	944	1,171	1,286	1,431	1,715	2,036	2,117	1,532	1,681	1,465	1,150	8,737	8,976	17,713	16·23	17·05	16·63	12·40	8
9	Sholápur	10	10	718	718	783	662	921	1,062	1,394	1,371	1,453	1,487	1,488	1,375	1,141	945	7,126	6,956	14,082	13·21	13·47	13·34	14·93	9
10	Sátára	15	15	1,346	1,220	922	737	958	1,014	1,364	1,469	1,298	1,442	1,369	1,340	1,171	984	7,219	6,849	14,068	13·40	12·64	13·02	9·89	10
11	Ratnágiri	10	10	1,311	1,230	1,430	1,189	1,331	1,253	1,289	1,948	1,260	1,324	1,076	1,166	1,239	1,474	7,238	7,846	15,084	13·08	12·07	12·53	12·87	11
	Southern Registration District.																								
12	Belgaum	12	12	1,070	908	417	383	479	450	586	527	402	374	373	333	350	333	2,544	2,463	5,007	5·32	5·31	5·32	5·11	12
13	Dhárwár	17	17	1,295	1,157	911	744	779	783	738	565	521	464	511	601	775	667	4,155	3,934	8,089	7·99	7·79	7·89	7·56	13
14	Bijápur	10	10	1,122	979	676	511	689	713	799	858	936	998	890	916	799	689	4,716	4,758	9,474	10·87	11·04	10·98	9·62	14
15	Kánara	13	13	1,265	1,015	635	579	560	389	383	404	416	542	445	437	437	512	2,937	2,808	5,745	13·35	13·35	13·35	14·89	15
	Gujarát Registration District.																								
16	Surat	10	10	760	691	928	881	1,156	1,021	962	931	931	1,008	931	872	924	873	5,610	5,808	11,418	17·16	17·75	17·46	14·74	16
17	Broach	8	8	409	383	439	503	691	711	626	595	706	845	806	793	678	490	3,981	3,906	7,887	25·16	26·31	25·72	21·02	17
18	Kaira	11	11	586	570	574	628	826	732	662	555	602	884	1,006	1,174	1,116	713	4,686	4,786	9,472	12·66	14·89	13·69	11·41	18
19	Panch Mahális ...	7	7	660	615	485	460	583	382	317	321	363	779	1 013	780	681	415	3,333	3,246	6,579	20·09	20·71	20·39	17·30	19
20	Ahmedabad ...	12	12	880	859	1,271	1,414	1,731	1,848	1,825	1,420	1,840	2,973	3,422	3,769	3,687	2,776	13,950	13,996	27,946	32·28	35·41	33·78	23·37	20
	Sind Registration District.																								
21	Karáchi	11	11	665	665	491	429	437	345	416	473	436	566	497	420	446	429	3,026	2,414	5,440	10·42	10·68	10·54	8·73	21
22	Hyderabad ...	15	15	1,529	1,529	1,398	1,174	1,451	1,458	1,237	1,126	1,332	1,144	916	976	1,119	1,237	8,226	6,392	14,618	14·40	13·75	14·11	14·33	22
23	Thar and Párkar...	12	12	957	957	1,075	907	1,215	1,051	790	545	462	353	328	542	558	651	4,733	3,894	8,627	18·54	19·33	18·89	17·25	23
24	Lárkhána	12	12	737	737	1,252	863	985	794	809	861	1,021	756	835	1,330	1,512	1,275	6,643	5,700	12,343	18·49	18·90	18·68	19·34	24
25	Sukkur	10	10	684	684	697	532	660	653	746	779	888	822	693	861	767	764	4,849	4,096	8,945	15·41	15·71	15·54	19·73	25
26	Upper Sind Frontier	6	6	422	422	269	205	246	198	202	237	224	210	274	312	295	277	1,604	1,365	2,969	11·02	11·62	11·29	14·29	26
	Total for the Presidency ...	293	293	26,253	24,561	22,687	19,073	23,106	22,319	23,265	21,684	24,062	28,166	26,961	26,823	25,689	23,486	146,698	139,623	286,321	14·40	14·85	14.62	13·00	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1912.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,438	618	87	62	101	115	179	201	401	649	652	325	175	111	1,549	1,509	3,058	2·97	2·94	2·96	4·69	1
2	West Khándesh ...	10	10	1,096	215	19	22	24	31	35	30	130	154	116	53	26	40	344	316	660	1·17	1·09	1·14	3·34	2
3	Násik	16	16	1,649	514	39	66	79	121	90	131	213	338	276	212	133	115	976	893	1,869	2·13	1·99	2·06	1·73	3
4	Thána	12	12	1,643	362	77	57	58	72	59	69	121	167	83	67	71	100	537	455	992	1·18	1·07	1·13	·88	4
5	Kolába... ...	11	11	1,461	468	85	58	61	83	82	98	104	216	149	80	48	62	644	572	1,216	2·18	1·91	2·05	1·52	5
6	City of Bombay ...	1	1	1	1	390	343	370	379	351	306	383	527	457	344	310	324	2,356	2,123	4,481	3·74	6·38	4·65	3·22	6
	Central Registration District.																								
7	Ahmednagar	14	14	1,348	983	179	149	216	234	339	365	792	873	756	674	340	304	2,812	2,409	5,221	5·99	5·20	5·53	4·88	7
8	Poona	12	12	1,201	882	396	344	458	522	629	765	1,197	1,045	774	829	608	448	4,430	3,585	8,015	8·23	6·81	7·53	3·65	8
9	Sholápur	10	10	718	674	324	299	316	402	554	568	820	878	844	763	418	341	3,432	3,065	6,527	8·86	8 14	8·50	5·59	9
10	Sátára	15	15	1,346	844	223	194	229	267	492	697	680	787	803	703	480	434	3,033	2,931	5,959	5·63	5·41	5·54	3·57	10
11	Ratnágiri	10	10	1,311	1,019	316	313	284	249	313	276	314	419	304	253	373	380	2,031	1,798	3,829	3·67	2·76	3·18	2·06	11
	Southern Registration District.																								
12	Belgaum	12	12	1,070	712	145	157	179	281	579	650	425	537	451	371	248	217	2,099	2,171	4,270	4 37	4·68	4·53	4·24	12
13	Dhárwár	17	17	1,295	492	107	104	128	154	188	185	168	173	148	160	121	111	917	830	1,747	1·76	1·64	1·70	1·21	13
14	Bijápur	10	10	1,122	586	136	97	105	74	164	283	499	621	481	392	262	153	1,568	1,699	3,267	3·61	3·89	3·79	2·82	14
15	Kánara	13	13	1,265	292	78	66	92	78	84	74	98	155	129	93	86	48	614	467	1,081	2·79	2·22	2·51	2·64	15
	Gujarát Registration District.																								
16	Surat	10	10	760	170	32	42	42	44	47	69	72	85	68	38	27	29	319	276	595	·98	·84	·91	·53	16
17	Broach...	8	8	409	103	12	17	21	19	21	29	48	61	50	47	18	8	177	174	351	1·12	1·17	1·14	·63	17
18	Kaira	11	11	586	251	45	46	75	101	83	71	127	266	311	206	145	71	845	702	1,547	2·23	2·18	2·24	1·33	18
19	Panch Mahális ...	7	7	660	50	6	4	2	...	5	4	3	41	55	37	4	4	77	78	155	·46	·50	·48	·40	19
20	Ahmedabad ...	12	12	880	135	31	34	44	49	46	42	127	344	319	165	115	79	749	646	1,395	1·73	1·63	1·69	·54	20
	Sind Registration District.																								
21	Karáchi	11	8	665	13	11	17	24	13	18	21	31	49	33	16	14	15	151	111	262	·52	·49	·51	·32	21
22	Hyderabad	15	15	1,529	64	33	40	31	21	32	32	50	56	20	16	24	12	202	165	367	·35	·35	·35	·41	22
23	Thar and Párkar ...	12	9	957	17	5	1	2	1	2	2	3	5	1	2	3	...	15	12	27	·06	·06	·06	·04	23
24	Lárkhána	12	7	737	7	...	...	1	...	...	2	4	19	1	...	1	1	14	15	29	·04	·05	·04	·05	24
25	Sukkur...	10	10	684	15	5	10	3	2	3	1	13	13	2	7	7	12	47	31	78	·15	·12	·14	·12	25
26	Upper Sind Frontier .	6	5	422	8	1	...	...	1	...	...	3	2	5	1	...	1	10	4	14	·07	·03	·05	·03	26
	Total for the Presidency ...	293	281	26,253	9,495	2,862	2,572	2,945	3,313	4,386	4,971	6,366	8,480	7,288	5,849	4,057	3,420	29,997	27,042	57,039	2·94	2·88	2·91	2·23	

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1912.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	16	16	1,438	999	499	358	470	427	382	325	489	743	684	383	477	441	2,866	2,812	5,678	5·49	5·48	5·49	3·55	1
2	West Khándesh...	10	10	1,093	499	189	150	159	121	114	107	155	207	174	113	150	174	932	881	1,813	3·17	3·07	3·12	2·46	2
3	Násik ...	16	16	1,649	922	358	293	333	304	281	281	379	558	408	315	343	367	2,022	2,198	4,220	4·44	4·89	4·67	3·51	3
4	Thána ...	12	12	1,643	380	75	64	95	107	111	36	60	85	126	127	75	75	587	459	1,046	1·28	1·18	1·19	·81	4
5	Kolába ...	11	11	1,461	294	51	38	52	59	58	39	50	49	61	53	49	40	318	281	599	1·08	·94	1·01	·58	5
6	City of Bombay...	1	1	1	1	1,039	927	1,086	1,124	1,041	1,039	1,014	1,000	887	857	909	895	6,339	5,479	11,818	10·07	16·43	12·27	11·28	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,348	887	277	225	268	296	315	335	395	418	426	437	358	357	1,991	2,116	4,107	4·19	4·57	4·35	3·90	7
8	Poona ...	12	12	1,201	718	309	202	228	311	284	317	428	427	349	401	405	380	1,980	2,061	4,041	3·63	3·91	3·79	3·72	8
9	Sholápur ...	10	10	718	378	141	105	126	109	177	124	163	151	121	146	197	174	790	944	1,734	2·02	2·51	2·26	1·62	9
10	Sátára ...	15	15	1,346	407	101	67	64	89	85	98	94	127	111	161	171	157	599	726	1,325	1·11	1·33	1·23	·87	10
11	Ratnágiri ...	10	10	1,311	737	222	190	166	161	191	145	178	195	194	199	228	246	1,195	1,110	2,305	2·16	1·71	1·92	1·69	11
	Southern Registration District.																								
12	Belgaum ...	12	12	1,070	735	225	216	227	219	269	282	299	290	318	275	287	231	1,638	1,500	3,138	3·43	3·24	3·33	2·27	12
13	Dhárwár ...	17	17	1,295	807	318	219	390	366	416	326	305	341	330	371	354	345	1,960	2,121	4,081	3·77	4·20	3·98	2·09	13
14	Bijápur ...	10	10	1,122	627	223	182	211	198	173	136	191	263	239	282	263	235	1,351	1,245	2,596	3·11	2·90	3·01	2·41	14
15	Kánara ...	13	13	1,265	232	38	35	55	50	55	32	37	58	31	38	43	49	289	238	521	1·29	1·13	1·21	·91	15
	Gujarát Registration District.																								
16	Surat ...	10	10	760	574	469	454	466	380	411	348	345	404	367	349	358	364	2,568	2,207	4,775	7·67	6·75	7·21	7·02	16
17	Broach ...	8	8	409	280	195	168	225	212	211	125	135	221	200	160	146	123	1,201	920	2,121	7·59	6·20	6·92	5·93	17
18	Kaira ...	11	11	586	530	503	534	598	681	685	519	554	783	838	766	683	551	4,260	3,370	7,630	11·51	10·48	11·03	9·01	18
19	Panch Mahális ...	7	7	660	123	22	24	31	25	21	13	22	33	33	25	23	22	183	108	294	1·12	·69	·91	·67	19
20	Ahmedabad ...	12	12	880	247	436	383	560	502	413	321	353	537	580	453	448	238	2,726	2,493	5,219	6·31	6·31	6·31	5·07	20
	Sind Registration District.																								
21	Karáchi ...	11	8	665	27	93	84	64	43	70	71	64	102	83	73	83	102	542	390	932	1·87	1·73	1·81	1·11	21
22	Hyderabad ...	15	14	1,529	35	69	54	66	52	4	58	53	64	53	56	43	43	332	293	625	·58	·63	·60	·63	22
23	Thar and Párkar.	12	8	957	12	1	20	7	6	...	4	2	1	1	2	3	10	44	13	57	·17	·06	·12	·10	23
24	Lárkhána ...	12	7	737	7	...	3	...	10	4	2	1	4	1	...	...	5	18	12	30	·05	·04	·05	·03	24
25	Sukkur ...	10	5	684	8	10	6	11	7	3	5	6	5	4	4	2	1	45	19	64	·14	·07	·11	·20	25
26	Upper Sind Frontier ...	6	2	422	2	...	...	...	...	...	...	1	...	...	1	1	...	2	1	3	·01	·01	·01	·01	26
	Total for the Presidency ...	293	271	26,253	10,468	5,868	4,991	5,958	5,859	5,674	5,088	5,778	7,076	6,619	6,047	6,099	5,655	36,715	33,997	70,712	3·60	3·62	3·61	2·97	

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1912.*

1	2	3		4		5												6			7			8	9
No.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh...	16	11	1,438	87	510	641	304	45	...	...	...	...	...	1	...	...	796	705	1,501	1·53	1·37	1·45	1·51	1
2	West Khándesh...	10	6	1,096	28	103	130	79	3	...	...	...	...	...	...	...	...	171	144	315	·58	·50	·54	·63	2
3	Násik ...	16	14	1,649	84	764	389	208	29	...	...	...	...	...	...	...	...	693	697	1,390	1·58	1·55	1·54	1·79	3
4	Thána ...	12	9	1,643	36	66	38	47	30	14	3	3	7	32	5	6	14	153	112	265	·33	·26	·30	1·06	4
5	Kolába ...	11	6	1,461	34	34	41	35	23	9	...	...	7	8	17	31	40	164	134	298	·56	·44	·50	·91	5
6	City of Bombay...	1	1	1	1	33	101	306	610	347	92	61	59	41	19	21	24	1,187	527	1,714	1·88	1·58	1·78	5·11	6
	Central Registration District.																								
7	Ahmednagar ...	14	8	1,348	50	209	113	37	3	...	...	...	...	11	8	2	...	165	218	383	·35	·47	·41	·46	7
8	Poona ...	12	11	1,201	53	388	187	70	4	...	...	1	16	55	106	100	98	533	492	1,025	·99	·93	·96	2·17	8
9	Sholápur ...	10	9	718	76	432	158	50	10	2	...	...	...	...	...	...	...	281	371	652	·72	·98	·85	2·16	9
10	Sátára ...	15	14	1,346	129	775	483	249	102	21	9	17	65	167	296	213	138	1,190	1,344	2,534	2·23	2·48	2·34	8·77	10
11	Ratnágiri ...	10	6	1,311	12	13	8	20	4	3	3	1	13	20	5	2	6	46	52	98	·08	·88	·08	·24	11
	Southern Registration District.																								
12	Belgaum ...	12	11	1,070	213	952	527	257	112	70	79	160	172	273	291	288	154	1,629	1,706	3,335	3·40	3·68	3·54	7·57	12
13	Dhárwár ...	17	17	1,295	194	1,119	318	115	56	16	9	39	77	128	170	292	237	1,253	1,332	2,585	2·40	2·63	2·52	8·46	13
14	Bijápur ...	10	10	1,122	419	3,067	1,327	640	130	23	6	95	644	1,332	1,762	989	599	5,340	5,774	11,114	12·30	13·45	12·88	3·07	14
15	Kánara ...	13	3	1,265	9	29	34	77	29	22	...	...	...	1	...	...	...	107	85	192	·49	·40	·45	·34	15
	Gujarát Registration District.																								
16	Surat ...	10	6	760	46	71	49	45	31	13	10	2	15	51	41	52	61	222	219	441	·68	·67	·67	1·91	16
17	Broach ...	8	1	409	1	...	...	2	...	...	...	...	...	...	...	...	...	...	2	2	·00	·01	·01	1·20	17
18	Kaira ...	11	3	586	3	4	1	...	2	...	...	...	...	...	...	...	1	5	3	8	·01	·01	·01	4·81	18
19	Panch Mahális ...	7	...	660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·69	19
20	Ahmedabad ...	12	5	880	6	3	2	5	1	2	...	1	...	...	...	...	...	10	4	14	·02	·01	·02	2·34	20
	Sind Registration District.																								
21	Karáchi ...	11	2	665	3	38	153	296	403	231	11	...	1	2	1	2	...	600	508	1,108	2·07	2·25	2·15	5·35	21
22	Hyderabad ...	15	5	1,529	6	...	2	4	...	1	...	...	...	...	...	...	...	7	...	7	·01	...	·01	·02	22
23	Thar and Párkar.	12	...	957	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
24	Lárkhána ...	12	1	737	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	·00	...	·00	·03	24
25	Sukkur ...	10	1	684	1	1	...	2	1	1	...	...	...	...	...	...	...	4	1	5	·01	·00	·01	·05	25
26	Upper Sind Frontier ...	6	...	422	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26
	Total for the Presidency ...	293	160	26,253	1,492	8,661	4,702	2,848	1,629	745	222	380	1,076	2,621	2,731	1,997	1,372	14,557	14,427	28,984	1·43	1·53	1·48	2·87	

N. B.—These figures do not include deaths among Europeans, Eurasians and Fighting men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

FIFTIETH ANNUAL REPORT

OF THE

SANITARY COMMISSIONER FOR THE GOVERNMENT OF BOMBAY

1913

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency,

AND

The Annual Reports of the Health Officers of the Ports of Bombay, Karachi and Aden.

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1914

ANNUAL SANITARY REPORT, 1913.

(Maximum limit, 25 pages.)

CONTENTS.

SECTION I.—METEOROLOGY—*Nil.*

SECTION II.—EUROPEAN ARMY—*Nil.*

SECTION III.—NATIVE ARMY—*Nil.*

SECTION IV.—JAILS—*Nil.*

SECTION V.

	PAGE.
General population and Vital Statistics	1— 8
European and Eurasian	1
Indian—	
Births	2
Deaths	3
Infant Mortality	4— 6
Extract form Report of Executive Health Officer, Bombay ...	5
Deaths by causes	7
Cantonments in Quasi-Foreign Territory	8
Rainfall	8
History of Chief Disease	9—22
Cholera	9
Small-pox	11
Fever	13
Antimalarial measures	14
Plague	17
Plague preventive measures	18
Dysentery and Diarrhœa	19
Injuries	19
Rabies	20
Snake-bite	20
Respiratory Diseases	20
Other causes	21
Sanitary Works—Civil	23—28
Grant from Government of India and Provincial Funds	23
Notified areas	26
Sanitary Committees	27
Personal Proceedings	28

APPENDICES.

		PAGE
Annual Report of the Sanitary Board		1— 3
„ „ Health Officer of the Port of Bombay		4—10
„ „ „ „ „ „ Karáchi		11—14
„ „ „ „ „ „ Aden		15—18
Death-rates before and after completion of drainage and water-supply projects		19
Annual Form I	Births	20
Annual Form II	Births and Deaths	21
Annual Form III	Deaths by Months	22
Annual Form IV	Deaths by Ages	24 & 25
Annual Form V	Deaths by Classes	26 & 27
Annual Form VI	Deaths by Districts and Towns classified by causes ...	28—37
Annual Form VII	Deaths from Cholera	38
Annual Form VIII	Deaths from Small-pox	38
Annual Form IX	Deaths from Fever	39
Annual Form X	Deaths from Dysentery and Diarrhœa	39
Annual Form XI	Deaths from Respiratory Diseases	40
Annual Form XII	Deaths from Plague	40

ANNUAL SANITARY REPORT FOR 1913.

SECTION I.—METEOROLOGY.—No remarks.

SECTION II.—EUROPEAN ARMY.—No remarks.

SECTION III.—NATIVE ARMY.—No remarks.

SECTION IV.—JAILS.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

1. In accordance with Government Notification in the Revenue Department No. 9707, dated the 19th October 1912, the Districts of Hyderabad and Thar and Párkar have been reconstituted as the Hyderabad, Thar and Párkar and Nawabshah with effect from the 1st of November 1912.

2. Throughout this report the population figures are not estimated but are actuals revealed by the census of 1911.

EUROPEAN AND EURASIAN—VITAL STATISTICS.

3. The European population in the Bombay Presidency exclusive of cantonments in quasi-foreign territory is 30,192. During the year 354 births and 273 deaths were recorded, against 372 and 358 in 1912, the calculated birth-rate was 11·72 per mille, against 12·34 in 1912 and the death-rate 9·42 against 11·86. 183 male and 171 female births were recorded, against 196 and 176 in 1912, while 167 male and 106 female deaths were reported against 217 and 141 in 1912.

4. Among the Eurasian population of 8,902, 193 births were registered, against 143 in 1912, and 124 deaths against 172, the birth-rate was 21·68 per mille, against 16·06 in 1912, and the death-rate 13·93 against 19·32.

Of the births 99 were males and 94 females, against 72 and 71 in 1912, whilst of the deaths 58 were males and 66 females against 81 and 91 in 1912.

INDIAN POPULATION—VITAL STATISTICS.

5. The native population for the Presidency of Bombay including Sind is 19,587,383.

6. At the beginning of the year the list of towns included in Annual Form VI was revised. Variations in population, revealed by the census of 1911, showed the necessity for revision; places with an insignificant population 30 years ago, when the list was originally compiled, have increased into towns. The revised list of towns includes 113 towns and cantonments as compared with 65 in 1912.

By the creation of the new district Nawabshah formed out of parts of Hyderabad and Thar and Párkar Districts, there are now, including Bombay City, 27 Collectorates comprising 247 Rural (táluka or mahál) Registration circles, 104 towns and 9 Cantonments: in addition, statistical returns are received from 7 Cantonments in the quasi-foreign territory.

7. The population of the rural circles is 16,409,709, of the town circles 3,101,693, of the Cantonments in British territory 75,981 and of the cantonments in foreign territory 100,089 persons.

Births.

8. The births registered in the Bombay Presidency including Sind numbered 684,803 and were in the proportion of 34·96 per 1,000 of population. The decrease of 87 as compared with the previous year was slight while the excess over the mean of the previous ten years was no less than 28,787.

9. Taking a táluka as a unit the birth-rate varied from 56·21 in Chálisgaon Táluka of East Khándesh District to 7·76 in Tatta Táluka of the Karáchi District. This apparent variation in fecundity is worthy of attention. The birth-rate for the Presidency proper was 37·99 as against 21·06 for Sind.

In the Presidency there are 186 units of registration, of these 81 per cent. returned birth-rates of over 35 per thousand, while all the 61 tálukas in Sind recorded birth-rates below 35, and from only one was a rate of over 30 received.

Registration in Sind has been made the subject of reports by Major Murphy, the Deputy Sanitary Commissioner. As a rule in Sind the urban birth-rate is higher than the rural, and there is no doubt that registration, more especially in rural areas, is defective; the possibility of improving it merits very close attention.

In the Presidency proper the táluka birth-rates vary from 56·21 in Chálisgaon to 20·86 in Malcompeth. The low birth-rate in Sálsette (29·07) is of interest, and is compared with those recorded for Yellápur and Supa Petha, (27·76 and 28·64) the intensely malaria infected areas of North Kánara. The birth-rate for Ahmednagar District has fallen from 47·75 in 1910 to 34·23 in 1913. The fall is due probably to scarcity and is connected possibly with emigration. In the absence of adverse conditions, such as famine and epidemic disease, a birth-rate below 40 should give rise to suspicion of defective registration. This is only a general statement, for some of the variations in birth-rates may be due to differences in age and sex constitutions of the populations.

10. In Bombay City 19,327 births were registered against 21,207 in the previous year.

One prosecution was instituted by the Health Department of Bombay for failure to notify births in the city. The parties concerned were warned and discharged by the Magistrate.

11. In the following table the birth-rate for the Presidency is compared with those reported from other parts of India :—

Bombay	37·99
Sind	21·06
Bengal	33·75
Madras	32·2
Bihar and Orissa	42·10
Assam	33·06
Punjab	45·4
United Provinces	47·67
Central Provinces	49·26
Burma	32·61

12. There were 355,805 male and 328,998 female children born during the year, against 355,897 and 328,993 in 1912. For every 100 female births there were 108·15 male. In the previous year the ratio was 108·18.

Births by sexes. Annual Form No. I.

The proportion of male to female births recorded varied from 103·72 in the Bombay City to 147·15 in Nawabshah District.

Births by years.

13. The following statement shows the number of births recorded in each year since 1903 :—

1903	... 576,949	1907	... 610,533	1911	... 705,090
1904	... 648,594	1908	... 660,201	1912	... 684,890
1905	... 611,173	1909	... 657,685	1913	... 684,803
1906	... 625,486	1910	... 689,701		

Birth-rates in urban and rural population.

14. The birth-rates recorded among the urban and rural populations of the Presidency were 27·29 and 36·45 respectively against 27·97 and 36·10 in 1912. Except in Sholápur, Dhárwár, Karáchi, Hyderabad, Lárkhána, Sukkur and Upper Sind Frontier, the rural birth-rate exceeded the urban.

Birth-rate in urban and cantonment circles.

15. Out of 104 towns and nine cantonments in the Presidency 19 towns recorded birth-rates exceeding 40 *per mille, viz.*, Sholápur (61·82), Dohad (54·28), Borsad (53·03), Gokarn (49·21), Ránebennur (49·03), Umreth (47·54), Jambusar (47·38), Mehemadabad (46·76), Bársi (45·69), Erandole (45·19), Gadag-Betegiri (44·53), Karáchi (44·03), Kaira (43·99), Nadiád (42·29), Nasirabad (42·20), Parola (42·11), Gokák (41·63), Athni (41·23), and Anand (41·03).

16. From 47 towns birth-rates of less than 30 *per mille* were returned, In the majority of instances defective registration must play a part.

Attention is especially directed to the birth-rates of Surat (13·3), Poona (13·81), Karad (16·03), Nawabshah (13·79), Islámpur (13·41), Mirpurkhás (12·36), and Belgaum (19·94).

Still-born.

17. Nine thousand seven hundred and fifty-three or 1·42 per cent. of the total live-births were registered as still-born against 10,328 or 1·51 per cent. in 1912; of the still-births, 5,450 were males and 4,303 females against 5,786 and 4,542 respectively in 1912.

The percentage of still to live-births varied from ·09 in Nawabshah to 8·18 in Bombay City. The variations between different districts were very great and are difficult to explain. The consistently high still-birth rate in the district of Kánara is noteworthy.

Deaths.

Number of deaths.

18. Among the Indian population in the rural, town and cantonment circles in the Presidency, 521,539 deaths were registered as against 683,210 in 1912. Of the total deaths registered, 269,635 occurred among males and 251,904 among females against 351,264 and 331,946 in 1912.

Deaths by years.

19. The following statement shows the number of deaths recorded in each year since 1903 :—

1903	... 811,525	1907	... 606,606	1911	... 555,312
1904	... 764,914	1908	... 501,838	1912	... 683,210
1905	... 588,394	1909	... 505,936	1913	... 521,539
1906	... 648,019	1910	... 560,003		

Death-rate.

20. The recorded death-rate was 26·63 *per mille* against 34·88 in 1912 and a decennial mean of 31·80.

21. The death-rate is compared with those reported from other parts of India below :—

Bombay	... 26·63
Bengal	... 29·38
Madras	... 21·4
Bihár and Orissa	... 29·14
Assam	... 27·66
Punjáb	... 30·2
United Provinces	... 34·84
Central Provinces	... 30·28
Burma	... 24·99

Male and female death-rate.

22. The rate *per mille* of males dying to males living was 26·46: the corresponding figure for females was 26·80. In 1912 these ratios were 34·48 and 35·32 respectively.

For every 100 deaths among females there were 107·04 among males as against 105·82 in the previous year.

These figures varied from 127·14 in Hyderabad District to 99·17 in Ratnágiri Collectorate. The ratio of male to female deaths is invariably high in the Province of Sind and was in the year under report 115·66.

Deaths by registration districts.

23. The following statement shows the recorded deaths in the five registration districts during the years 1912 and 1913:—

Registration districts.	1912.	1913.
Western Registration District	159,972	113,727
Central Registration District	181,252	131,885
Southern Registration District	123,036	93,656
Gujarát Registration District	109,526	87,719
Sind Registration District	70,867	63,047

The decrease in each district is marked.

The recorded deaths in Bombay City were 31,505.

Deaths by collectorates.

24. In the Province of Sind the death-rate was 17·98 as against one of 28·51 for the Presidency proper. In Sind the variations were between 13·27 for Hyderabad Collectorate and 22·95 for Lárkhána, whilst in the Presidency the lowest death-rate recorded was in Ratnágiri 20·95 and the highest 36·97 in Broach.

Birth and death-rates compared by collectorates to columns 6 and 9, Annual Form II.

25. An examination of columns 6 and 9, Annual Form II, shows the birth-rate exceeded the death-rate in all the collectorates, the excess being equivalent to 8·33 per 1,000 of population.

In Bombay City the death-rate exceeded the birth-rate by 12·64 *per mille*.

Deaths by ages and sexes, Annual Form No. IV.

26. Deaths by ages are shown in Annual Form No. IV. It will be seen there were 238,934 deaths among children under 5 years of age, which according to the census of 1911 gives a death-rate of 86·34 per thousand living as compared with 107·36 last year. Children under 5 years of age contributed 45·81 per cent. to the total deaths.

Deaths by caste or class.

27. The deaths by classes in each collectorate are recorded in Annual Form V, Appendix IV.

Infant mortality.

28. The mortality of infants, based on the number of registered births, was 188·42 per 1,000 against 218·70 during the previous year. The proportions were 194·03 among males and 182·34 among females as compared with 225·81 and 211·01 respectively.

29. In Bombay City the ratio of infant mortality based on recorded statistics was 384·54.

The following extract from the Annual Report for 1913 of the Executive Health Officer, Bombay Municipality, shows what progress has been made during the year as regards the enquiry into the causes of infant mortality and its amelioration:—

Infant mortality by age-periods.

The following table classifies infantile deaths from principal causes under the three age-groups of 1—30 days, 1—6 months and 7—12 months during 1913 : the corresponding figures for 1912 have been inserted for comparison.

Table of Deaths among Infants from principal causes by age-periods in 1913 and 1912.

Age-period.	Year.	Small-pox.	Mea-sles.	Mala-ria.	Ague and remit-tent fever.	Diar-rhœa and Dysen-tery.	Prem-ature birth.	Debility.	Nervous system.	Respira-tory system.	All causes.	Percent-age of deaths in each age-period to total deaths under 1 year of age.
1 to 30 days .	1913 ...	3	...	...	29	34	181	1,908	302	66	2,591	34·46
	1912 ...	10	1	...	20	51	218	2,152	347	70	2,937	30·44
1 to 6 months	1913 ...	27	13	5	64	151	...	259	694	833	2,203	29·42
	1912 ...	121	17	7	83	258	1	354	903	1,247	3,188	33·04
7to 12 months	1913 ...	25	53	9	93	430	...	40	282	1,214	2,694	35·97
	1912 ...	143	64	17	145	591	...	75	320	1,560	3,521	36·50
Total ...	1913 ...	55	66	14	186	615	181	2,207	1,278	2,113	7,488	...
	1912 ...	274	82	24	248	900	219	2,581	1,570	2,877	9,646	...

If the foregoing table be scrutinised, it will be seen that except for a slight increase (9) under Ague and Remittent Fever there was in all the three groups a very appreciable reduction in infant mortality under every cause of death as compared with 1912.

In the age-group of 1—30 days there was a large drop of 244 under debility and of 346 under all causes; in the second group such decreases were as under : small-pox 94, respiratory diseases 414, nervous diseases 209, diarrhœal diseases 107, debility 99, and all causes 985; in the third group, only the following need be noticed : small-pox 118, diseases of the respiratory system 346, diarrhœal diseases 161, all causes 827.

The highest percentage of total infant mortality (35·97) was registered among children of 7—12 months old and the lowest (29·42) in the age-period of 1—6 months.

It will be noticed that out of 19,644 children registered as born, (i) 2,591 died within 30 days of birth, being 346 less than in the preceding year; for a very large majority of these 1,908 or 73·63 (against 2,152 or 73·27 in 1912) the cause of death given was debility, that is, want of vitality, immaturity at birth, wilful or ignorant neglect and the methods adopted by the unskilled or untrained women attending the labour; (ii) 2,203 children, being 985 less than in the preceding year, died before attaining the age of 6 months, the cause of death in the descending order of incidence, being 37·81 diseases of the respiratory system (against 39·11 in 1912), 31·50 diseases of the nervous system (convulsions) against 28·32 in 1912, 11·75 debility (against 11·10 in 1912) and 6·85 diarrhœa and dysentery (against 8·09 in the preceding year); (iii) 2,694 of the children, being 827 less than in 1912, died before attaining the age of 12 months, the cause of death being 45·06 diseases of the respiratory system (against 44·30 in 1912), 15·96 diarrhœa and dysentery (against 16·78 in 1912) and 3·45 ague and remittent fever (against 4·11 in the preceding year).

It will be observed that out of the total mortality under 1 year of age, nearly 36 per cent. occurred in the age-group of 7—12 months and, further, that of the deaths at this period of life, a little less than half are due to the diseases of the respiratory system. In the first and second age-groups the maximum mortality is due to debility and diseases of the respiratory system respectively. The next most fatal cause is diseases of nervous system in the first and second groups : and diarrhœa and dysentery in the third : all of which signify exposure and defective feeding.

For a correct estimate, infant mortality should be calculated on the corrected number of births so as to include infants who may have died during the year without their births being registered. The corrected number of births for 1913, works out, as we have seen, to 27,863 and gives an infant mortality of 268·74 per 1,000 of such births against 322·3 in 1912 and 288·8 in 1911.

The following statement tabulates the work of the Municipal Nurses and Midwives in regard to attendance at birth and infant visitations. They have to find out and advise prospective mothers and to attend on confinements, and repeat their visits even after the lying-in

period; to find out as far as possible and warn against the prenatal and post natal influences which imperil infant life:—

Summary of inquiries and of work of municipal nurses and midwives.	1909.	1910.	1911.	1912.	1913.
Total number of births (including still-born) registered ...	21,645	21,505	23,135	23,186	21,236
Percentage of still-births to the total number of births registered.	8·3	7·2	7·6	7·1	7·4
Number verified by the nurses	13,677	12,762	13,578	14,417	13,639
Percentage of the number verified to the total	63·1	59·3	58·7	62·1	64·2
Do. confinements unattended	18·0	15·2	12·7	13·0	12·8
Do. confinements attended by unskilled women ..	58·3	59 6	60·7	59·6	60·0
Do. confinements attended by qualified nurses (including municipal).	11·3	12·0	13·2	13·9	14·2
Do. confinements attended by municipal nurses...	4·5	5·6	5·5	6·6	8·7
Do. children born in hospitals	12·3	13·2	13·2	13·5	12·8
Do. children born in healthy condition	67·8	68·9	74·9	73·7	71·9
Do. children fed on breast	64·9	59·8	69·7	66·5	68·4
Do. children dying within 30 days	12·3	11·8	11·5	11·8	10·7
Do. cases where the mothers left home for work.	31·3	27·9	34·4	29·7	30·6

From an examination of the foregoing statement it will be observed that of the total number of 21,236 births (including still births) registered in the city, 13,639 or 64·2 per cent. were verified by the nurses and midwives of the Department; the percentage of verification being the highest since infant visitation was started in June 1908.

The Scheme to reduce infant mortality.

Recognising that the position of the untrained native midwife or *dai* is one of the most important factors in the high rate of infant mortality, the scheme seeks to bring her in touch with trained nurses and Lady Health Visitors so that her work can be supervised and the risk to mother and child minimised. This unclean woman who receives a small fee of annas eight to Rs. three attends woman after woman without any aseptic precautions, going direct from one woman to another. Weird and incredible are the descriptions given of the crude and primitive methods employed by the *dais* during and after delivery.

As it is impossible to get rid of this class of women at once, the scheme aims by degrees at bringing them under control and by legislation on the lines of the Midwives Act of England (1902) at replacing them by a better class.

By way of a beginning and with a view to instructing the *dais* how to deal with normal cases and to recognise early symptoms of complications so that they could send for skilled help, the *dais* of the City were assembled in the Municipal Dispensaries in the different Districts and lectures and demonstrations given to them by the District Registrars: impressing on them the necessity for (1) the cleanliness of hand and person and surroundings, (2) the use of antiseptics, (3) the abolition of the crude and primitive methods in vogue and unnecessary interference with labour, (4) calling in trained aid, and (5) reporting every case they attend.

Further, the Association contemplates the establishment for each district or section of the City a Ladies' Committee who will collect funds and supervise the work of trained Lady Health Visitors who will be provided to instruct *dais* and hold classes for instructing girls and women in the hygiene of womanhood and thus work in co-operation with the Corporation midwives.

30. The following table divides the infantile deaths for the Collectorates of Belgaum, Dhárwár, Bijápur and Kánara in three groups according to the age at which deaths occurred. The figures are percentages of the total infantile deaths:—

District.	Percentage under 1 month.	Percentage between 1 and 6 months.	Percentage between 6 and 12 months.
Belgaum	43·37	30·17	26·46
Dhárwár	41·93	33·66	24·41
Bijápur	35·80	34·98	29·22
Kánara	57·88	24·76	17·36

If the figures are taken for tálukas instead of for Collectorates a very wide variation in the number of deaths occurring in infants under 1 month is found to exist. A large number of deaths in infants soon after birth is seen in those tálukas in which malaria is endemic, the waste of child life due to malaria is

well known, but is probably felt at no age period so acutely as that between conception and the end of the first few weeks of independent existence. Apart from malaria the high death-rate during the first month of life can only be improved by education of the mother and her attendants, and by improvement in the maternal surroundings. These are matters to which Rural Sanitary Associations now formed or in course of formation will doubtless turn their attention.

Statistics of Ahmedabad.

31. The general death-rate in Ahmedabad City fell from 64·92 to 39·61 per mille, the mean for the last five years being 53·53; plague caused 2, cholera 1, fever 3,622 and respiratory diseases 2,823 deaths, as against 5,363, 5,798 and 3,738 respectively in 1912.

There were 6,600 births recorded or 30·84 per mille of population, the deaths exceeding the births by 8·77. The deaths registered under one year of age were 2,835 corresponding to a ratio of 429·55 per 1,000 of the total number of registered births.

Deaths by causes.

32. The subjoined table shows the number of deaths in 1913 arranged according to causes and contrasted with the results for 1912 and with the mean of preceding five years :—

	Mean for five years, 1908—1912.		1913.		1912.	
	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.
Cholera ...	20,898	1·09	5,134	·26	64,505	3·29
Small-pox ...	4,640	·24	9,833	·50	6,331	·32
Plague ...	41,218	2·15	25,288	1·29	28,984	1·48
Fever ...	248,026	13·11	246,319	12·58	286,321	14·62
Dysentery and diarrhœa.	42,210	2·23	34,021	1·74	57,039	2·91
Respiratory diseases .	58,033	3·07	59,418	3·03	70,712	3·61
Injuries ...	7,130	·38	7,711	·39	7,175	·37
Other causes ...	139,104	7·34	133,815	6·83	162,143	8·28
All causes ...	561,260	29·61	521,539	26·63	683,210	34·88

For comments on the causes of deaths, *vide* Section VI.

33. The recorded death-rates among urban and rural populations, and in the nine cantonments in British territory, are given in Table VI, Appendix IV. The death-rates for the seven cantonments in Foreign territory will be found in paragraph 36.

The urban and rural death-rates were 32·90 and 25·41 per mille, against 41·48 and 33·80 in 1912.

In ten collectorates the rural death-rates were in excess of the urban.

34. The following table shows that in 6 town circles out of one hundred and thirteen the recorded death-rates exceeded 50 per mille :—

Town Circles.	Death-rates.	Town Circles.	Death-rates.
Poona City	51·41	Wái	93·00
Sholápur	59·79	Gokák	60·74
Sátára	55·93	Bágalkot	70·20

Death-rate in cantonments in British territory.

35. During the year under report, the death-rates in cantonments from all causes, were below normal; the highest figures being reported from Poona and Kirkee, namely, 24·51 and 28·72 per mille respectively.

Statistics of cantonments in *quasi*-foreign territory.

36. The total number of births registered in those cantonments which are situated in *quasi*-foreign territory during the year 1913 was 2,293 against 2,440 in 1912, the birth-rate being 22·90 *per mille* as against 24·28 in 1912. There were 3,446 deaths, giving a ratio of 34·42 *per mille* against 4,060 and a ratio of 40·40 in 1912.

The statistics are tabulated below:—

Statement showing the names of cantonments with population and deaths by diseases for the year 1913.

Cantonments.	Population according to census of 1911.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from									Ratio of deaths per 1,000 of population.								
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhœa.	Respiratory diseases	Injuries.	Other causes.	All causes.
Aden. Municipal limits.	40,684	67⅝	602	868	21·34	...	11	59	193	667	...	14	993	1,937	...	0·27	1·45	4·74	16·39	...	·34	24·41	47·61
Aden. Purely civil population of cantonment.	307	7⅜	42	...	...	...	...	1	1	6	...	1	5	14	...	...	3·26	3·26	19·54	...	3·26	16·29	45·60
Baroda	3,478	1	3,478	85	24·44	...	...	...	30	5	12	1	26	74	...	...	...	8·63	1·44	3·45	9	7·47	21·23
Deesa	7,129	5	1,713·20	155	21·74	...	...	...	7	14	...	...	125	146	...	...	...	·98	1·96	...	...	17·53	20·48
Mhow	22,360	6·5	3,440	171	7·65	...	6	...	210	6	...	...	415	637	...	·27	...	9·39	·27	...	...	18·56	28·49
Nasirabad	16,144	8·58	1,881	741	45·9	...	...	...	180	...	...	33	194	407	...	...	...	11·15	...	...	2·04	12·02	25·21
Neemuch	9,786	4·52	2,165	272	27·79	...	...	...	50	5	71	1	58	225	...	...	...	9·20	·51	7·25	·10	5·93	29·12
Rájkot	201	·56	359	1	4·97	...	...	...	4	...	...	...	2	6	...	...	...	6·09	...	...	...	3·04	9·14
Total ...	100,089	100·87	992	2,293	22·90	...	17	60	715	703	83	50	1,818	3,446	...	·17	·59	7·14	7·02	·82	·49	18·16	34·42

Rainfall for 1913.

37. The main features of the rainfall were :—

(*a*) Rapid penetration of monsoon current in June, giving rise to excessive rain in Gujarát and to more than the average fall in all parts of the Presidency with exception of the Karnátak.

(*b*) General defect in rainfall in August, September and October.

Famine conditions existed in Ahmednagar Collectorate, and grain compensation was allowed upto the end of September. Elsewhere the prices of food-grains were more or less normal.

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Mortality in 1913.

38. In Annual Form VII are shown the deaths from cholera for each district by months, the number of registration circles affected and the number of villages in which the disease was reported to have occurred.

Deaths by collectorates.

39. During the year 1913 there were 5,134 deaths recorded as due to cholera contrasted with 64,505 in 1912. Of the total number of recorded deaths, 1,337 were reported from the collectorate of Sátára; 1,280 from Sholápur; 998 from Poona; 264 from Násik; 220 from Ahmednagar; 219 from Belgaum; 197 from Bijápur; 170 from Thána and 115 from Kolába.

Deaths by months, the number of registration circles and villages affected.

40. The epidemic of 1912 was severe and persisted upto the end of the year, 551 deaths being reported in December. During January 1913 two hundred and forty-four deaths occurred, mainly in the collectorates of Thána and Kolába and in the city of Bombay. This was obviously the tail-end of the 1912 epidemic, which subsided gradually until during March only 12 deaths were returned; 5 being from Bombay City and 6 from Ratnágiri.

In April there was a sudden outburst in Sholápur, Sátára, Poona and Ahmednagar Collectorates. The Acting Deputy Sanitary Commissioner reports:—

"The simultaneous commencement of the epidemic in the month of April in the four collectorates of Sátára, Sholápur, Poona and Ahmednagar seems to have had its origin in the annual fair held at the village of Shinganápur. This village is situated on the border-land between the Mán Táluka of the Sátára Collectorate and the Málsiras Táluka of Sholápur Collectorate. It is also within a very short distance of the Bhimthadi and Indapur Tálukas of the Poona Collectorate and the Karjat Táluka of the Ahmednagar Collectorate. Since all the abovementioned tálukas began to report cases of cholera following shortly on the 25th of April, when a case of cholera was reported from Shinganápur, which was followed by several others while the fair was on, there is every reason to believe that pilgrims infected in Shinganápur were instrumental in spreading the infection to the surrounding villages in the abovementioned tálukas, which in their turn became the starting points of the epidemic in their own collectorate. The infection spread rapidly to the surrounding tálukas so that by the end of April the tálukas of Málsiras, Sangola, Pandharpur, Mádha and Karmála were affected in the Sholápur Collectorate. The tálukas of Man, Khatáv and Koregaon were affected in the Sátára Collectorate and the tálukas of Indápur and Bhimthadi were affected in the Poona Collectorate. In the Ahmednagar Collectorate the infection remained confined to the Karjat Táluka in the month of April, though it subsequently spread to the Jámkhed and Párner Tálukas in the following month."

In Sholápur Collectorate all the rural circles were infected, and a fairly serious epidemic resulted in all except in Mádha Táluka. 12·8 per cent. of all villages reported deaths.

In Poona Collectorate 8 out of 11 rural circles and 7·7 per cent. of the villages were infected.

In Sátára Collectorate 11 out of 14 rural circles were infected, but the distribution was irregular—in two infected tálukas, Sátárá and Pátan—the number of deaths was small. 8·5 per. cent. of villages in the collectorate reported deaths.

In Ahmednagar Collectorate deaths occurred in 10 out of 11 tálukas, but less than 2 per cent. of villages were infected.

From these four collectorates deaths continued to occur upto October, but the disease died out entirely in November. May was the month of greatest mortality.

In Belgaum Collectorate the outbreak started in May. Under 3 per cent. of villages were attacked, and the epidemic was never serious. The Deputy Sanitary Commissioner writes:—"The infection was introduced into Kongnoli village of Chikodi Táluka from Jotiba's fair in Kolhápur State."

In Bijápur Collectorate, where less than 3 per cent. of villages were infected, the disease was introduced during the end of May from Sholápur District.

In August the disease spread to Násik and East and West Khándesh Collectorates, but deaths occurred in less than 2 per cent. of the villages.

In December a fairly serious epidemic broke out in Broach City, which had not abated at the close of the year.

In the province of Sind the history of cholera was practically confined to an epidemic in Lárkhána District. The Deputy Sanitary Commissioner reports:—

"The disease broke out in epidemic form in Bubak, a small insanitary municipal town 8 miles from Sehwan. Thirty-four cases occurred in Bubak Town between September 1st and October 30th, when the last case was reported, and of these 23 ended fatally."

Twenty-six towns returned deaths from cholera. The highest mortality (130) occurred in Sholápur; next in order were Bombay City (123), Ashta (86) in Sátára Collectorate, Bárámati (70) in Poona, Pandharpur (51), and Broach Town (50); the remaining towns suffered but lightly.

Among the 6 cantonments in the Presidency one death was reported from this cause at Poona and Kirkee respectively.

The disease was local and attacked 478 out of 25,188 villages in the whole Presidency.

Mortality for twenty years, 1894 to 1913 inclusive.

41. The following table shows the total number of deaths from cholera recorded in the annual reports for the last twenty years:—

1894	33,588	1899	8,579	1904	13,156	1909	28,714
1895	8,890	1900	163,889	1905	5,396	1910	3,694
1896	35,404	1901	13,600	1906	46,119	1911	5,817
1897	57,109	1902	3,229	1907	7,656	1912	64,505
1898	4,368	1903	1,825	1908	1,759	1913	5,134

Preventive measures.

42. On the outbreak of infection the usual instructions were issued to village officers. Major Murphy, I. M. S., reports:—"Bubak was visited by the Deputy Sanitary Commissioner during the epidemic and advice was given on the measures likely to check the spread of the disease. The Sub-assistant Surgeon on malarial duty happened to be in the neighbourhood at the time and his services were utilized throughout the epidemic. The people, however, showed their usual disregard for the precautions advised. For example, they preferred to use the water of the tanks surrounding the town (expansions of the Aral River) rather than the water of the wells which were supervised and periodically permanganated.

Tablets of potassium permanganate were issued in the case of the outbreak at each place but they do not seem to have been availed of. The Mukhtiarkár of Sehwán wrote that the "free use of potassium permanganate for drinking purposes yy patients was being encouraged but it would take time to overcome the rigid conservatism and prejudices of people with regard to the drug."

Little information on the value of permanganate salts in the treatment of cholera is forthcoming as there is considerable objection to swallowing fairly strong solutions. The issue of the drug in the form of suitably coated pills might be more efficacious and a report is being prepared for submission. There is some evidence to connect the spread of cholera with the assembly of people at the different places of pilgrimage. The *role* of the carrier in the dissemination of infection is well known, and the importance of the protection of water and food is obvious. Some recent research into the part played by food in the spread of cholera is deserving of attention in this country. Popular opinion

has associated cholera with various fruits (mangoes and water-melons) and vegetables (cucumbers). Certain investigators have found that cholera vibrios can maintain their virulence on fruit for many days. This point merits investigation in India where the danger of fruit becoming infected is very great. Apart from the hands of sellers fruit may readily be contaminated by flies: it is quite common to see cut mellons exposed for sale and covered with numbers of flies. Perhaps the most important measure that can be taken against cholera is supervision of conservancy. Efficient conservancy for towns has been a difficult matter owing to the distance of the filth trenches from the centre of the town, where the population exceeds 15,000 the employment of sufficient carts to remove all excrement becomes financially difficult; in cantonments this question of carriage has been settled temporarily by incineration *in situ*: this method involves very considerable supervision and is not applicable to all municipalities. Major Marjoribanks read a paper at the third Sanitary Conference on the method of pitting night-soil introduced by him at Násik. This system requires supervision but not to the same degree as does incineration. Its success at Násik, where the night-soil depôt is almost in the town, should prove an object-lesson of value to all municipalities.

Small-pox.

Deaths from Small-pox.

43. During the year under report the deaths recorded under the heading small-pox numbered 9,833 (4,972 males and 4,861 females) as compared with 6,331 in the previous year and 5,315, the deccennial mean.

The number of deaths from small-pox since 1902 is shown below :—

Year.	Number of deaths from small-pox.	Year.	Number of deaths from small-pox.
1902	2,189	1908	2,526
1903	2,752	1909	5,019
1904	4,289	1910	4,600
1905	16,985	1911	4,727
1906	4,063	1912	6,331
1907	1,862	1913	9,833
Total ...	32,140	Total ...	33,036
Mean ...	5,357	Mean ...	5,503

It is unsatisfactory to note that the heavy mortality of 1912 was exceeded.

Deaths from small-pox by months and collectorates are shown in Annual Form No. VIII.

Progress of the disease.

44. At the end of December 1912 the disease was widely disseminated throughout the Presidency and the Province of Sind, every Collectorate with the exception of Kaira and Surat having reported deaths during the month. The infection spread rapidly till April, when 2,160 deaths were recorded. The mortality then gradually decreased till October. A slight increase was manifest during November and December.

The chief force of the epidemic fell on the Collectorates of East and West Khándesh, in which the mortality rates were as high as 2·55 and 3·28, respectively, per mille. The mean death rates from small-pox for these two Collectorates are 0·33 and 0·30, respectively.

The other Collectorates to suffer severely were Poona (0·91), Bijápur (0·67), Ahmednagar (0·57), Belgaum, (0·43), Násik (0·42), Kolába (0·41), Thána (0·31), Sholápur (0·29), and Sátára (0·26).

In the Province of Sind, the Districts of Hyderabad, Upper Sind Frontier and Lárkhána returned death rates of 0·32, 0·30 and 0·27, respectively.

Deaths were reported from 2,470 towns and villages against 1,272 in 1912.

A feature of the epidemic was the severe infection of several large towns. The death rates are given below :—

Poona City	...	...	4·41	Ratnágiri	...	...	2·28
Amalner	...	...	4·00	Lonáwla	...	...	2·20
Nandurbár	...	...	3·04	Sátára	...	...	2·14
Hyderabad	...	...	2·49	Sangamner	...	...	2·10
Párola	...	...	2·39	Sholápur	..	...	1·80

In the whole Presidency the ratio was 0·50 as compared with 0·32 in the previous year and a quinquennial mean of 0·24.

Small-pox is essentially a contact disease. Schools are rapidly increasing in number, and in towns a very large proportion of the children attend. The diagnosis of modified small-pox in a child partially protected by vaccination presents many difficulties, so the danger of unprotected children in schools acquiring infection is very real. An epidemic is due to the introduction of infection into a community containing a certain percentage of susceptible individuals. Every year some children escape vaccination, and the likelihood of small-pox depends on the proportion they bear to the total population. Small-pox picks out the susceptible and reduces that proportion, so it is evident that a severe epidemic can seldom occur in two consecutive years in the same locality; in 1913 the Collectorates severely affected were those which suffered slightly in 1912 and *vice versa* :—

	1913.	1912.
East Khándesh	2,641	194
West Khándesh	1,902	170
Ahmednagar	534	51
Poona	972	189
Belgaum	404	211
Bijápur	580	159
Bombay City	210	966
Ratnágiri	221	491
Dhárwár	177	479
Surat	25	396
Karáchi	84	502
Hyderabad	198	547
Thar and Párkar	115	407

Deaths by age.

45. Of the total number of deaths 30 per cent. occurred among children under one year of age, 56 per cent. among children of one to ten years, and the remaining 14 per cent. among persons over ten years of age.

Case mortality.

46. The case mortality was low. Detailed reports on the epidemic in every village have not been received, but the following information gathered from an investigation into the epidemic as it affected ten villages of the Southern Registration District is of interest.

From these villages 604 attacks with 40 deaths were reported. The total population of the villages is 10,784, so 5·6 per cent. were attacked.

In all the villages a very large proportion of the children born are vaccinated. It is impossible to give an exact figure, but it must be about 80 per cent.

On this assumption 8,627 are protected more or less by vaccination, while 2,157 are unprotected.

Among the 8,627 there were 281 attacks (3·2 per cent.), while among the 2,157 unvaccinated there were 323 attacks (15 per cent.).

Six out of 281 vaccinated individuals died, giving a case mortality of 2·13 per cent.; while of the 323 unvaccinated 34 died, the case mortality being 10·5 per cent.

The average age at death of those vaccinated was 19 and of those unvaccinated 6.

The deaths among the vaccinated included three in children under 10, two of whom were badly vaccinated, and the third was an infant a few months old said to have four good vaccination marks. Of the deaths among the unvaccinated 10 occurred in infants under 1 year and 14 in children between 1 and 10 years.

It is true that the figures are gathered from only a few villages which, however, were not selected. They show the value of vaccination in a country where the adoption of other protective measures is not feasible. The low case mortality may be due to a virus of lowered potency, but the possibility of the inclusion of chicken-pox must be remembered. Captain Betts, I. M. S., Civil Surgeon of Násik, has called attention to severe epidemics of chicken-pox occurring at Násik and Deoláli, and points out that it is seldom such epidemics can be diagnosed by a medical man. It is obvious that chicken-pox and small-pox must be confused by village officers.

Preventive measures were as usual limited to vaccination and re-vaccination.

Fever.

Deaths from fever.

47. During the year 1913, 246,319 deaths (126,386 males and 119,933 females) were recorded as due to fevers against 286,321 in the previous year and 253,152, the mean of the preceding ten years.

The number of deaths recorded from fevers since 1902 is given below :—

Year.	Number of deaths from fevers.	Year.	Number of deaths from fevers.
1902	270,845	1908	243,372
1903	259,704	1909	223,888
1904	251,330	1910	263,528
1905	245,373	1911	223,027
1906	274,653	1912	286,321
1907	260,329	1913	246,319
Total ...	1,562,234	Total ...	1,486,455
Mean ...	260,372	Mean ...	247,742

Deaths by Registration Districts and Collectorates.

48. Deaths from fever by months and Collectorates are shown in the Annual Form No. IX.

The fever death-rate for the Presidency fell from 14·62 in 1912 to 12·53 in the year under report against 13·11, the mean of previous five years. The decrease in mortality, as compared with the figures of the preceding year, is noticeable in all the Collectorates, with the exception of Lárkhána, Sukkur and Upper Sind Frontier. The decrease was most conspicuous in Ahmedabad, East Khándesh, Poona and Sholápur, all of which had recorded a very high fever mortality in the previous year.

The highest ratios per mille of population were recorded in the Collectorates of Ahmedabad (25·30), Broach (23·51), Lárkhána (21·74), Sukkur (18·49), Upper Sind Frontier (16·73), Thar and Párkar (16·12) and Panch Maháls (16·69), while the lowest were returned from Belgaum (5·08), Dhárwár (7·10) and Bijápur (8·18).

By Registration Districts, Gujarát recorded the highest ratio of 18·71, Sind 15·21, Western 13·26, Central 11·91 and Southern 7·46.

The ratio for the city of Bombay was 3·11.

Deaths by months.

49. There was an almost unbroken fall in fever mortality from January to June in which month the minimum number (16,158) was recorded. From July to November there was a continuous rise, the maximum (27,362) being recorded in the latter

month. Unfortunately the mortality from fever does not indicate the prevalence of malaria. The Deputy Sanitary Commissioner of Sind Registration District remarks :—

"The rainfall for the year was unprecedented. The average of the figures recorded throughout each District is shown below :—

	1913.	Average of previous five years.
	Inches.	Inches.
Karáchi District	28	12
Thár and Párkar	26	13
Hyderabad	24	9
Nawábsháh	12	
Lárkhána	7	5
Sukkur	6	4
Upper Sind Frontier	5	4

"Following on the month of chief rainfall the Autumn of the year was characterised by an exceptionally severe epidemic of malaria throughout the Province; 1912 on the other hand was a year of less than normal rainfall and not unusually malarial.

"The recorded death figures for fever do not give expression to this exceptional epidemic malaria and further do not show co-relation between rainfall and malaria in the different Districts. Karáchi and Thar and Párkar, for example, which suffered very severely from malaria and had the heaviest rainfall, show a decrease in fever deaths, while on the other hand Sukkur and Jacobabad where epidemic malaria and increased rainfall were less marked show an enhanced fever death rate."

Anti-malarial measures.

50. During the year under report 37 sub-assistant Surgons against 30 in 1912 were deputed on anti-malarial duty in the most malarious parts of certain selected districts, as detailed below :—

District.	Táluka or Mahál.	Number of Sub-Assistant Surgeons.	Cases of malaria.	Cases of enlarged spleen.	Total number of cases treated.
Ahmedabad ...	Dholka	1	1,821	51	1,872
Kaira	Mátar	1	3,063	.....	3,063
Panch Mahals ...	Halol	1	1,811	.....	1,811
	Dohad	1	1,377	.....	1,377
	Godhra	1	1,525	.....	1,525
Surat	Olpad and Bardoli ...	1	1,584	193	2,356
	Mándvi	1	2,608	99	3,472
West Khándesh ...	Nandurbar	1	1,100	169	1,728
	Nawápur	2	1,225	1,188	3,806
	Sákri	1	1,909	26	2,410
	Taloda	1	892	64	2,371
	Akrani	1	745	228	1,285
Poona	Ambegaon	1	445	45	687
	Mulshi	1	275	106	764
	Haveli	1	708	295	1,486
	Baramati	1	1,192	53	1,877
Belgaum	Khánápur	1	1,870	977	6,254
Dhárwár	Kalghatgi	1	768	.....	1,087
	Hirekerur	1	1,230	.....	1,561
	Hangal	1	1,558	.....	1,973
Kolába	Karjat	1	1,080	125	1,205
	Khalapur	1	885	41	926
	Panwel	1	2,858	169	3,027
	Nagothana	1	475	25	500
Ratnágiri	Malwan	1	1,065	.....	1,442
Thána	Dáhánu	1	Information not available.		
	Bassein	1	Do.		
	Sháhápur	1	Do.		
Kánara	Above-ghát Tálukas ...	1	Do.		
	Below-ghát Tálukas ...	1	Do.		
Hyderabad	Badin	1	Do.		
Lárkhána	Nasirabad, Shehwan and Mehar.	2	Do.		
Sukkur	Pano Akil	1	2,579	.....	2,579
	Ghotki	1	317	.....	317
Karáchi ...	.....	1	Information not available.		

The Sub-Assistant Surgeons were on duty for from four to five months, and visited every village in their respective charges two or three times in a month. All the schools in the area were visited, and those children exibiting enlargement of the spleen were treated. The value of the work done by these Sub-Assistant Surgeons is indicated in some degree by the number of cases of malaria treated. The Civil Surgeon of Poona has pointed out that their educative value in the prevention of malaria would be enhanced if they could pass through their period of deputation without contracting malaria themselves. He suggests the supply of a mosquito net to each Sub-Assistant Surgeon "both for his own sake and for the sake of example."

Quantity of quinine sold and free distributed.

51. From the reports received from the Collectors the quantity of quinine sold by the District Local Boards and some of the Municipalities in the Presidency, including Sind, amounted approximately to 628 lbs. 3 oz. 5 dr., while that distributed free was 629 lbs. 5 oz. 4 dr., as detailed below :—

Quantity sold.		Quantity distributed free.	
Lbs. oz. dr.		Lbs. oz. dr.	
493 11 7	(in 43,200 treatments).	117 10 11	(in 10,296 treatments).
126 4 0	in pills.	489 4 3	in pills.
8 3 14	in powder.	22 6 6	in powder.
Total ... 628 3 5		Total ... 629 5 4	

No quinine was sold or distributed free by the District Local Boards of East Khándesh, Sholápur, Sátára and Násik.

Agencies employed in Sind for the sale of quinine are chiefly Mukhtiarkars; and for free distribution Mukhtiarkars, Assistant Collectors and Divisional Officers while on tour, school masters (especially among school children), some respectable zamindárs, and the members of the District and Táluka Local Boards and Municipalities.

In the Presidency proper the agencies employed for the sale of quinine are village officers, school masters and circle inspectors; in many talukas it is sold at the Mámlatdár's Katcheri; in Dhárwár District quinine treatments are sold by the District Sanitary Association through their local secretaries. The agencies for free distribution are village officers, school masters, talátis, circle inspectors, Mámlatdárs and officers of the Revenue and other Departments of Government while on tour.

There are in almost all towns shop-keepers who sell quinine in pills and powder. Quinine treatments are sold only in the selected districts. (*Vide* Government Resolution, General Department, No. 2157, dated 30th March 1912.

In addition to the quantities given above, 1,195 lbs. of quinine in pice packets of 10 gr. each were sold by Post Offices in the British Districts of the Presidency.

Thus 2,452 lbs. of quinine were sold and distributed in the Presidency and Sind, exclusive of that dispensed at the different Hospitals and Dispensaries.

Effect of quinine distribution.

52. As regards the effect of quinine distribution on the incidence of malaria, especially among school children, the Collector of Thar and Párkar reports :—

"A few selected schools were first taken up, and, as the experience proved a success, it was extended, and in the year 1913 quinine has been distributed free in all Local Fund Schools (except in the Desert portion where there is practically no fever and where it has been distributed only in one school). This is done through the school masters, one tablet (of 3 grains) a day being administered to each scholar from 1st September to 31st December (the 'fever season')." Fifty-one lbs. of quinine were thus distributed. "It is difficult to get any exact information as to the value of quinine prophylaxis, but I have gone into the matter carefully on tour when visiting schools, and it is certain that this quinine distribution has been attended with beneficial results, particularly in a season like 1913, which was exceptionally malarious. Every one spoke highly of the good the quinine had done to the children, and the figures of attendance from September to December pointed in the same direction. I am also decidedly of opinion that this free distribution in schools has had a great effect in popularising quinine in the neighbourhood. There is now more demand for it everywhere than there was formerly."

One hundred and forty-two lbs. of quinine tabloids were distributed among school boys in Lárkhána District, the Collector of which reports:—

"The system of free distribution of quinine was introduced last year. The current year has been exceptionally malarious and in some places the use of quinine in schools was continued into January. I have not yet received any reports on the result of the distribution this year. Those which I received last year were without exception favourable and gave good reason to believe that the average attendance at the schools during the malarial months had increased considerably as a direct result of the use of the quinine."

The Collector of Nawábsháh reports:—

"Quinine was supplied free to the Head-masters of the several Local Board Schools in the district with instruction to have a regular "quinine drill" of the school for two days every week from 1st September to 30th November. The results are reported to be very satisfactory."

The Collector of Hyderabad reports that the Head-masters of schools were instructed to hold quinine drill on two days in each week; 1,890 boys received quinine and 13 per cent. were attacked with malaria. It is very satisfactory to note that the Collectors consider that the administration of quinine to school children has been followed by benefit to the children themselves, and indirectly to their parents by popularising the drug. The educational value of this method of quinine distribution is of importance in the prevention and treatment of malaria. The quantity of quinine sold and distributed (2,452lbs.) will go a very small way in either direction: it represents 17,164,000 grains. In Thar and Párkar District each child received about 300 grains during the malaria season. On this basis the quantity of quinine sold and distributed in the Presidency is sufficient to protect about 57,000 school children and leaves nothing over for treatment: of course much quinine for treatment is given under expert medical advice.

In all systems of quinine distribution there must be waste, the limitation of which is demanded by efficiency and economy. Children are very prone to contract malarial infection; it seems, therefore, logical to concentrate quinine distribution on schools.

The value of quinine in limiting the loss of school hours is a point on which there is no necessity to enlarge. All will admit the advisability of administering quinine regularly to school children in malarious areas in the malaria season.

In judging of the practicability of quinine administration there is fortunately the guide of experience. School quininisation on any scale has been limited to the Province of Sind, where the Collectors of Thar and Párkar and Lárkhána have issued tablets of quinine for use in all schools. The result is said to be increased attendance of scholars, and, as indicated above, an increased demand for quinine by the parents.

Malarial centres are fairly well known, but the exact distribution of the disease will be evident in a few years. Deputy Sanitary Commissioners are compiling a spleen census of the Presidency, while two special officers with adequate staff have been appointed to conduct an accurate malarial survey.

The officers were trained at Delhi before commencing operations. One officer and party were detailed for Sind and the other for Kánara. The first few months were occupied by a statistical enquiry. In Sind field work started in Hyderabad District in November. The results of the first touring season will be incorporated in a report to be prepared during the recess at head-quarters.

The investigation in Kánara was delayed by an enquiry which was demanded for Khárághoda. A report has been issued and the recommendations based on it are under consideration.

Actual work in Kánara commenced in December, and information gained will be detailed in a interim report to be prepared during the recess at head-quarters.

PLAGUE.

Deaths from plague.

53. During the year 1913 the recorded deaths from plague numbered 25,288 (12,621 males and 12,667 females) against 28,984 in the previous year and 92,781, the decennial mean.

The number of deaths recorded from plague since 1902 is as follows :—

Year.	Number of deaths from plague.	Year.	Number of deaths from plague.
1902	184,752	1908	27,345
1903	281,269	1909	24,319
1904	223,957	1910	25,043
1905	71,363	1911	109,899
1906	51,525	1912	28,984
1907	93,609	1913	25,288
Total ...	906,475	Total ...	231,878
Mean ...	151,079	Mean ...	38,563

Progress of the disease.

54. In December 1912, plague was reported from the following Collectorates :—

Thána, Kolába, Poona, Sátára, Ratnágiri, Belgaum, Dhárwár, Bijápur and Surat. The City of Bombay also reported cases.

During the year deaths were registered in all the Collectorates with the exception of Panch Maháls, but the epidemic was felt chiefly in the Collectorates of Sátára, Poona, Belgaum, Dhárwár and Bijápur. In the Province of Sind, plague was practically limited to the Karáchi District.

In Sátára and Poona Collectorates deaths in diminishing number were reported from the beginning of the year up to the end of April. The month of May was quite free.

During the week ending the 14th June, 14 deaths were reported from the Shirala Táluka of the Sátára District and 1 death from Haveli Táluka of the Poona District. Epidemic conditions were not established, just two or three deaths being registered each week. During the week ending July 31st, three more tálukas (Wái, Sátára and Wálwa) of the Sátára District were infected, but it was not till August that the mortality became really serious, and the epidemic conditions lasted through September and October.

In Belgaum, Dhárwár and Bijápur Collectorates plague was reported in January from Gokák, Chikodi, Hukeri, Belgaum and Khánápur Tálukas of Belgaum Collectorate, from Hubli, Gadag, Ron, Karajgi and Kod Tálukás of Dhárwár District, and from Indi, Muddebihal, Hungund, Bágalkot and Bádámi Tálukás of the Bijápur District.

The infected area became rapidly circumscribed till, in May, deaths were reported from only two tálukás, Hukeri and Belgaum, of the Belgaum District. The disease was very slow in making its reappearance in other tálukas. A few fresh centres of infection were noted in June and July, but it was not till August that epidemic conditions resulted. The slow development of epidemic conditions was most striking.

The epidemic in Thána and Kolába Collectorates was confined mainly to Sálsette and Alibág Tálukás, and coincided in season with the epidemic period in Bombay City—March, April and May.

There is one point of interest in the history of plague in this Presidency: the continued freedom of the towns and villages on the coast line of Kánara.

Number of Registration Circles and towns and villages affected.

55. Deaths were reported from 166 out of 360 Registration Circles, but were confined to 921 towns and villages. In 1912 the comparative numbers were 160 and 1,492. The following table gives the towns which furnished the highest mortality, as compared with the mortality in the tálukas in which they are situated :—

District.	Town.	Death-rate from plague in	
		Town.	Táluka.
Sátára	Wái	71·82	8·74
Do.	Sátára	29·95	5·64
Do.	Islámpur	31·96	5·89
Poona	Poona	14·09	3·36
Belgaum	Gokák	38·9	1·17
Dhárwár	Gadag	14·56	13·51
Do.	Hubli	12·06	6·79
Bijápur	Bágalkot	40·94	6·63
Do.	Bijápur	23·29	3·64
Do.	Guledgud	9·97	9·91
Kolába	Alibág	10·12	1·62
East Khándesh	Bhusáwal	9·06	0·61

Seasonal mortality.

56. During the first four months of the year plague was epidemic in Bombay City: with this was associated probably the mortality in Thána and Kolába Collectorates. Throughout the rest of the Presidency mortality gradually dwindled during the first half of the year, began to rise in July and reached its maximum in October.

Plague preventive measures.

57. Inoculation was the chief measure relied upon for the prevention of plague. Eighteen temporary Assistant Surgeons were engaged in this work, while in addition inoculation was practised by private medical practitioners and by Medical Officers in charge of Civil hospitals and dispensaries.

The total number of persons inoculated during the year under report was 175,456 compared with 73,895 during the previous year; of those inoculated 167,815 lived in British Territory and 7,641 in the Native States.

By Districts, the number of operations were 65,147 in Dhárwár, 42,200 in Bijápur, 22,160 in Poona, 15,609 in Belgaum, 12,164 in Sátára, 1,235 in Thána, 870 in Surat, 490 in Ahmednagar, 151 in Ratnágiri and 1 in Ahmedabad.

In Native States, 3,046 operations were performed in Jámkhandi State.

More than one half of the total inoculations were performed in the following Cities and Towns :—

Bombay City 5,488, Karáchi 2,300, Poona Cantonment 4,539, Poona City 13,713, Gadag 4,184, Hubli 5,006, Ilkal 2,125, Kirkee 3,242, Guledgud 3,555, Thána Prison 1,198, Wái 3,514, Mahábleshwar 446, Sátára 5,761, Belgaum Cantonment 2,299, Belgaum City 3,220, Kittur 1,073, Hukeri 1,147, Dhárwár Prison 1,235, Navalgund 1,782, Bijápur 9,510, Kerur 2,679, and Bágalkot 2,044.

Most of the operations in Kirkee and Belgaum Cantonments were among the military.

Deaths among the inoculated.

58. Three hundred and forty-four cases were reported among persons who had been inoculated, of which 113 proved fatal, as compared with 152 cases and 56 deaths in the previous year. Of this total 227 cases with 74 deaths occurred in Dhárwár Collectorate, 6 cases with 3 deaths in Poona, 23 cases with 8 deaths in Sátára, 28 cases with 12 deaths in Belgaum and 60 cases with 16 deaths in Bijápur. Among the fatal cases 64 occurred within the period of incubation of the disease, 13 after 15 days, 19 after one month, 8 after 2 months, 7 after 3 months, 1 after 6 months and 1 after 9 months. It should

be remembered that the figures given here have not been subjected to close scrutiny: it has not been possible to obtain accurate information relative to all cases reported, but figures showing the results of as extensive an enquiry as onditions permit will be forwarded when complete to the Director, Parel Laboratory.

Dysentery and Diarrhœa.

Deaths from dysentery and diarrhœa.

59. During the year under report 34,021 deaths, of which 18,134 were males and 15,887 females, were ascribed to these causes as compared with 57,039 in 1912 and 49,890, the mean of previous ten years.

The number of deaths from dysentery and diarrhœa since 1902 is given below :—

Year.	Number of deaths from dysentery and diarrhœa.	Year.	Number of deaths from dysentery and diarrhœa.
1902	58,682	1908	40,781
1903	55,443	1909	35,039
1904	61,470	1910	46,643
1905	55,488	1911	31,549
1906	61,736	1912	57,039
1907	53,708	1913	34,021
Total ...	346,527	Total ...	245,072
Mean ...	57,754	Mean ...	40,845

Deaths by Registration Districts and Collectorates.

60. Deaths from these causes by months and Collectorates are shown in Annual Form No. X.

The ratio per 1,000 of population for the whole Presidency amounted to 1·74 against 2·91 in the preceding year and 2·23 the quinquennial mean. In all the Collectorates, excepting Karáchi and Sukkur, there was a marked decrease in the mortality recorded.

Deaths by months.

61. These diseases were as usual most prevalent in the rainy months of July, August and September, while their incidence was least felt during the month of February.

The connection between diarrhœal diseases and humidity is under investigation in Poona; and the result of this investigation should indicate the line of prevention for other localities.

Injuries.

Deaths from Injuries.

62. There were 7,711 deaths recorded as due to injuries, of which 4,290 were among males and 3,421 among females. The figures for the previous year were 7,175 and the mean of the preceding ten years was 6,889.

The number of deaths recorded under the heading Injuries since 1902 is shown below :—

Year.	Number of deaths from injuries.	Year.	Number of deaths from injuries.
1902	7,434	1908	7,109
1903	6,693	1909	7,029
1904	6,333	1910	6,885
1905	6,586	1911	7,452
1906	6,830	1912	7,175
1907	6,799	1913	7,711
Total ...	40,675	Total ...	43,361
Mean ...	6,779	Mean ...	7,227

Deaths from injuries in 1913 and 1912 by sexes.

63. The deaths by sexes arranged under the various heads classed as Injuries, and compared with the previous year, are given in the following table :—

Causes.	1913.			1912.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,372	1,802	3,174	1,312	1,622	2,934
Poisoning	126	64	190	110	50	160
Hanging	134	68	202	166	81	247
Wounding	687	358	1,045	636	364	1,000
Wild beasts	40	12	52	28	11	39
Snake-bite	868	516	1,384	728	456	1,184
Rabiès	90	38	128	...	...	...
Railway accidents	88	17	105	62	17	79
Other causes	885	546	1,431	994	538	1,532
Total ...	4,290	3,421	7,711	4,036	3,139	7,175

It will be seen from the above figures that there were increases under all heads except hanging and other causes.

Deaths from rabiès.

64. In compliance with orders in Government Resolution, General Department, No. 5363, dated 22nd July 1913, statistics of mortality from rabiès are shown in a separate sub-column in column 10 of Annual Form No. VI. In all there were 128 deaths reported from rabiès. The highest number (19) was reported from East Khándesh, while in Sind no death was registered. Among towns the highest number (13) was returned from Bombay.

Deaths from snake-bite.

65. There was an increase of 200 in the deaths caused by snake-bite over the previous year's figures. Ratnágiri, which reported 206 deaths against 262 in 1912, was the District with the greatest mortality, followed by Thána (151), Sátára (115) and Lárkhána (85) ; while the lowest (5) was recorded in the city of Bombay.

Information as to the species of snakes responsible, length of time intervening between bite and death and the treatment adopted is forthcoming from the Southern Registration District, and the Deputy Sanitary Commissioner reports that particulars of 117 out of 133 deaths were received. "In 35 cases the snake was identified as a cobra ; and in these the interval between the bite and death varied from an hour to 18 hours." Treatment with permanganate was tried in five of the fatal cases.

Deaths from drowning.

66. Drowning accounted for 41 per cent. of the mortality from injuries. As usual above half the bodies were found in wells. The victim was a woman in 66 per cent. of the drowning accidents.

Suicidal deaths.

67. There were 582 suicidal deaths—305 males and 277 females—against 580 in the previous year. Drowning or hanging were as usual selected in the majority of instances.

Respiratory Diseases.

Deaths from Respiratory Diseases.

68. There were 59,418 deaths (31,493 males and 27,925 females) registered under the heading Respiratory Diseases as compared with 70,712 in 1912 and a decennial mean of 58,231.

The number of deaths recorded under this heading since 1902 is given in the following table :—

Year.	Number of deaths from Respiratory Diseases.	Year.	Number of deaths from Respiratory Diseases.
1902	59,379	1908	54,671
1903	59,349	1909	53 433
1904	59,579	1910	59,880
1905	54,537	1911	51,470
1906	60,615	1912	70,712
1907	58,068	1913	59,418
Total ...	351,527	Total ...	349,584
Mean ...	58,588	Mean ...	58,264

Deaths by Registration Districts and Collectorates.

69. Deaths from these diseases by months and Collectorates are set forth in the Annual Form No. XI.

The ratio per 1,000 of population of deaths from these diseases amounted to 3·03 against 3·61 in 1912 and 3·07, the mean of the previous five years. Mortality from respiratory diseases, as compared with the figures of the preceding year, was less in all the Collectorates of the Presidency with the exception of Ratnágiri, Kánara and Karáchi. The decrease was most noticeable in East Khándesh, Ahmedabad and the City of Bombay. By Registration Districts Gujarát recorded the highest ratio of 6·14 and Sind the lowest (·51).

Deaths from Respiratory Diseases, by districts and towns, are shown in Annual Form No. VI, column 9. The mortality in rural areas amounted to 2·28 per 1,000 of population as contrasted with 6·93, the urban ratio. The highest ratios were recorded in Kaira (18·64), Borsad (15·34), Ahmedabad (13·19), Jambusar (12·12), Broach (11·33) Umreth (10·70), Bombay (10·57), Nadiád 9·98, Kapadvanj and Dhandhuka (9·83) and Mirpurkhas (9·03). It will be noted that most of the towns returning a high death-rate are in Gujarát. In many of the towns in the province of Sind deaths from respiratory diseases are unknown.

Seasonal mortality.

70. There is no marked seasonal prevalence.

Other Causes.

Deaths from "Other causes."

71. The number of deaths recorded, under the heading "Other causes" amounted to 1,33,815 (69,088 males and 64,727 females) as compared with 1,62,143 in 1912 and 1,38,459, the decennial mean.

The number of deaths registered under this heading since 1902 is as follows :—

Year.	Number of deaths from Other causes.	Year.	Number of deaths from Other causes.
1902	134,952	1908	124,275
1903	144,510	1909	128,495
1904	144,800	1910	149,735
1905	132,666	1911	130,871
1906	142,478	1912	162,143
1907	124,575	1913	133,815
Total ...	823,981	Total ...	829,334
Mean ...	137,330	Mean ...	138,222

Deaths by Registration Districts and Collectorates.

72. The ratio per mille of population for the Presidency was 6·83 against 8·28 in the previous year. In the case of individual Collectorates the ratio varied from ·15 in Thar and Párkar to 12·55 in Kánara. All the Collectorates in the Southern and those in the Western Registration Districts, with the exception of Thána, recorded high rates as compared with the rest of the Presidency.

The percentage of deaths recorded from "Other causes" to total deaths for the Presidency was 25·65 with percentages varying from 39·59 in the Southern Registration District to 7·99 in Sind.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

73. This section appears as a separate report.

SECTION VIII.

SANITARY WORKS—MILITARY.

74. No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

75. During the year 1912-1913 there was no change in the number of city and town Municipalities in the mofussil.

The total income of the Municipalities amounted to Rs. 1,09,75,326-3-10, of which a sum of Rs. 62,99,663-13-2 was expended on "public health and convenience" against Rs. 54,84,191-2-5 in 1912. The actual expenditure on public health requirements, such as water-supply, drainage and conservancy amounted to Rs. 38,61,355-0-2 as compared with Rs. 32,15,211-15-5 in 1912. Calculated on the census population (2,352,248) the incidence of taxation per head of population has decreased from Rs. 2-6-4 to Rs. 2-5-5, while that of income has increased from Rs. 3-9-1 to Rs. 3-11-9. The individual rate of contribution to the Municipal income varied as usual within wide limits—from annas 4·5 in Yankanmardi in the Belgaum District to Rs. 3·8 in Karáchi.

The expenditure on public health by the Municipalities showed during the financial year 1912-1913 an increase of Rs. 8,15,472 over the previous year. Included in this expenditure are many improvements in water supplies and drainage, the details of which are given in Appendix I. It will be seen that seven new projects were sanctioned by the Sanitary Board, 35 were in progress and 19 others were under consideration.

76. The population of the area administered by the 25 District Local Boards was 18,061,323. The income during the year ending 31st March 1913 amounted to Rs. 76,34,897 against an expenditure of Rs. 78,28,268. The disbursements included sums of Rs. 4,33,611 spent on water supplies and drainage and of Rs. 30,295 on other improvements—less than 6 per cent. of the total expenditure. The 214 Táluka Local Boards expended Rs. 13,91,070, out of which Rs. 12,35,859 went on Civil Public Works.

77. During the year Government sanctioned certain allotments from the Provincial Funds as well as from the grant of Rs. 7 lákhs made by the Government of India. The Provincial grants were made for carrying out improvements exclusively to village water supplies, while the allotment made by the Government of India has been mainly devoted to the improvement of water supplies, village sanitation, the proper equipment and maintenance of dispensaries and the up-keep of roads and bridges.

The following statement shows the distribution of these allotments and the expenditure met from them :—

Divisions.	Districts.	Provincial Funds.		Government of India grant.		Remarks made by District Officers.
		Grants made from Provincial Funds.	Expenditure.	Grants made from allotments sanctioned by the Government of India.	Expenditure.	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Northern Division.	Ahmedábad	5,000 0 0	*15,385 0 0	40,000 0 0	13,949 0 0	*The surplus was made available from Local Funds.
	Kaira	1,500 0 0	.....	30,006 0 0	1,37,804 0 0	Allotments are amalgamated with the General Revenues.
	Panch Mahâls	1,500 0 0	.....	30,000 0 0	30,009 0 0	Do.
	Broach	5,000 0 0	253 7 2	†32,060 0 0	11,385 4 0	do. † Rs. 60 from the Local Funds.
	Surat	2,000 0 0	2,502 12 10	25,000 0 0	26,155 0 0	
	Thána	5,000 0 0	.....	25,000 0 0	.....	The grants will be drawn in 1914-15.
Central Division.	East Khándesh	6,500 0 0	1,503 13 1	41,000 0 0	35,307 0 0	Balance will be spent by the end of March 1914.
	West Khándesh	3,500 0 0	1,399 1 0	29,200 0 0	6,489 3 11	
	Násik	2,500 0 0	‡136 13 10	29,000 0 0	6,764 14 9	‡ Repairs to wells.
	Ahmednagar	4,650 0 0	3,604 0 0	24,910 0 0	3,485 0 0	
	Poona	7,000 0 0	965 10 4	26,713 0 0	11,150 9 5	
	Sátára	2,500 0 0	.....	30,000 0 0	17,524 0 0	The whole grant will be utilised by the end of the financial year.
	Sholápur	15,000 0 0	2,524 12 10	22,800 0 0	22,800 0 0	
Southern Division.	Belgaum	2,500 0 0	2,401 0 0	80,000 0 0	42,462 0 0	The grants have been merged in the General Revenues of the Local Boards.
	Bijápur	1,500 0 0	5,993 0 0	29,000 0 0	71,673 0 0	
	Dhárwár	2,000 0 0	.....	38,000 0 0	2,37,263 0 0	
	Kánara	1,000 0 0	.....	15,000 0 0	40,410 0 0	
	Kolába	1,500 0 0	.....	19,000 0 0	26,791 0 0	
	Ratnágiri	1,500 0 0	.....	25,000 0 0	63,625 0 0	
Sind	Karáchi	950 0 0	.....	19,000 0 0	17,679 0 0	The expenditure figures are for the financial year 1912-13.
	Hyderabad	1,200 0 0	.....	37,000 0 0	22,755 13 0	
	Sukkur	460 0 0	§1,255 0 0	21,000 0 0	21,085 0 0	
	Lárkhána	1,600 0 0	251 14 0	36,000 0 0	36,643 6 10	§ Rs. 795 remaining unspent from the village water-supply grant for preceding year were spent during the year.
	Thar and Párkar	2,400 0 0	7,417 0 0	23,000 0 0	23,207 12 8	
	Upper Sind Frontier	370 0 0	139 0 0	18,000 0 0	16,078 11 5	
	Nawábsháh	2,500 0 0	1,909 0 0	.....	.....	

As to the expenditure met from these grants no precise information is forthcoming under the abovementioned heads, as the allotments made to different Boards were amalgamated by them with their "General Revenues" and consequently no separate account of them was kept. When the expenditure exceeded the allotment the excess was made good from local funds and public contributions.

78. With reference to paragraph 9 of Government Resolution, General Department, No. 5013, dated 8th July 1913, details are given as far as available of expenditure met from the allotment of Rs. 21½ lákhs made up of Rs. 4½ lákhs Imperial Recurring grant, Rs. 2 lákhs Provincial grant, Rs. 6 lákhs Recurring grant and Rs. 9 lákhs special non-recurring grant. The following is a summary of the accounts received from Collectors of various districts with regard to the Urban Sanitary Works.

Surat.—Out of the allotment of Rs. 10,000 to the Bulsár Municipality for town improvement Rs. 9,747-15-8 were expended.

Broach.—(*a*) Against the total allotment of Rs. 90,000 for the carrying out of the Bohorwada scheme no expenditure was incurred up to end of December 1913. Acquisition proceedings have, however, been completed and the compensation awards will amount to Rs. 50,230-9-5.

(*b*) The sum of Rs. 25,000 allotted for filling up the insanitary Fata Talao within the limits of the Municipality has been fully utilised. To complete the project an extra sum of Rs. 4,350 is being provided by the Municipality.

Kaira.—Rs. 6,330 have been expended by the Nadiád Municipality in the acquisition of land for storing manure heaps.

Thána.—Out of the Government grant placed at the disposal of the Special Officer, Sálsette Building sites, a considerable amount has been spent in the improvement of Markets at Andheri and for the construction of storm-water drain at Santa Cruz. Other projects are under consideration.

Sátára.—A sum of Rs. 5,067-6-4 was expended on a water-supply for Karád.

Sholápur.—(*a*) The Executive Engineer has spent Rs. 22,777-2-11 out of the amount of Rs. 1,70,000 raised by the Municipality on loan for improving the water-supply at Sholápur.

(*b*) A small sum has been spent in preliminary surveys against the grant of Rs. 1,50,000 for the improvement of the water-supply at Bársi.

(*c*) A sum of Rs. 14,725 has been sanctioned for town improvement schemes at Pandharpur. The period for expending this grant has been extended by Government.

(*d*) Out of the grant of Rs. 15,000 a sum of Rs. 4,171-1-0 has been spent on development of land at Sholápur for building purposes.

Dhárwár.—(*a*) Out of the allotment of Rs. 56,300 sanctioned for Dhárwár City improvement scheme, a sum of Rs. 18,467-4-6 was spent on draining a Bhangi passage.

(*b*) Out of the grant of Rs. 20,000 sanctioned for construction of a drain at Gadag Bettigiri, the Municipality spent Rs. 76 for surveying plans and estimates.

Belgaum.—From the grant of Rs. 35,000 to the Belgaum Municipality a sum of Rs. 6,840 was expended in opening out congested areas.

Bijápur.—The total outlay on the construction of a drain behind the post office in the town of Bágalkote was Rs. 2,088 against the allotment of Rs. 2,094.

Kánara.—A sum of Rs. 14,082-4-11 was spent on sanitary improvements in Kárwár town.

Karáchi.—The entire grant of Rs. 2,00,000 was spent in extending the drainage scheme to the Civil Lines and Frere Town quarters.

Hyderabad.—In Hyderabad the work of filling in tank No. 1, for which a grant of Rs. 20,000 was made, has commenced.

Sukkur.—The Shikárpur Municipality spent Rs. 436 in addition to the grant of Rs. 3,500 for filling in the Fulton Tank.

Lárkhána.—(*a*). Out of the grant of Rs. 18,000 a sum of Rs. 17,240-10-1 was spent on filling in the Kafila Serai Tank.

(*b*). A start was made in filling in the tank at Kambar and Rs. 994 were expended against the grant of Rs. 10,000.

Thar and Párkar.—Up to July 1913 Rs. 23,807 had been expended in filling the Lambo Tank at Umarkot.

Aden.—A sum of Rs. 4,000 has been given by Government towards the cost of Infectious Diseases Hospital, Perim.

There are three Sanitary Associations—Bombay, Belgaum and Dhárwár. These societies are very active, and will have great influence in the advance of sanitary knowledge. A grant of Rs. 20,000 was given by Government towards the cost of the construction of a central building for the Bombay Sanitary Association.

79. Out of the Discretionary grants placed at the disposal of the Commissioners the following sums have been expended :—

(*a*) *In Sind.*—Rs. 200 for the free distribution of quinine in Thar and Párkar.

(*b*) *Northern Division.*—Rs. 150 to the Sanitary Committee at Kanjari in the Panch Maháls and Rs. 300 to the Home for the Destitute in Surat.

80. The relief of overcrowding in villages is beset with many difficulties, and little has yet been done.

81. The number of Notified Areas was 19, exclusive of six in the Thána District created to exercise control over building operations.

The total income of the 19 areas amounted to Rs. 1,03,641-7-11 and the expenditure to Rs. 60,316-6-7. The incidence of taxation per head came to annas 12/8 and of income Rs. 1-5-9.

The village Kurduwadi was declared to be a new Notified Area.

The income and expenditure of each Notified Area Committee is given in the following table :—

Districts.	Nos.	Names of villages and towns.	Income.	Expenditure.	Balance.	Remarks.
			Rs. a. p.	Rs. a. p.	Rs. a. p.	
Broach	1	Palej	3,071 12 9	2,452 0 11	619 11 10	
Thána	1	Santa Cruz	10,426 0 0	5,902 0 0	4,524 0 0	
	2	Vile Padle	6,204 0 0	2,468 0 0	3,736 0 0	
	3	Andheri	8,994 0 0	6,827 0 0	2,167 0 0	
	4	Malád	6,339 0 0	4,825 0 0	1,514 0 0	
	5	Borivli	7,167 0 0	5,645 0 0	1,522 0 0	
	6	Ghátkopar	20,702 0 0	6,251 0 0	14,451 0 0	
		Kirol				
East Khándesh ...	1	Chálisgaon	13,072 15 11	8,321 11 8	4,751 4 3	
	2	Pachora	3,539 12 0	2,034 9 3	1,505 2 9	
Násik	1	Manmád	5,882 0 10	5,728 3 11	153 12 11	
Sholápur	1	Madha	3,539 1 4	2,324 7 1	1,214 10 3	
Belgaum	1	Bail Hongal	5,943 15 8	3,318 15 9	2,624 15 11	
	2	Khánápur	1,895 14 8	1,249 3 10	646 10 10	
	3	Chikodi	1,484 8 6	473 7 3	1,011 1 3	
Bijápur	1	Muddebihal	125 11 3	66 13 6	68 13 9	
	2	Hungund	1,351 7 3	418 9 9	932 13 6	
Dhárwár	1	Hangal	1,288 0 0	763 0 0	525 0 0	
Kolába	1	Karjat	293 6 4	.....	293 6 4	
Ratnágiri	1	Dapoli	2,310 13 5	1,247 3 8	1,063 9 9	
		Total ...	1,03,641 7 11	60,316 6 7	43,325 1 4	

82. The Bombay Village Sanitaion Act, 1889, was in force in 316 villages. There are two Sanitary Boards, one at Chikhli-Samroli in Surat District and the other for three villages of Hosur, Balekope and Kondli in Siddápur táluka of the Kánara District. The following table shows the income, expenditure and the closing balances of these Boards :—

Districts.	Villages.	No. of Sanitary Boards.	Income.	Expenditure.	Closing balance.
			Rs. a. p.	Rs. a. p.	Rs. a. p.
Surat	Chikhli	1	645 1 7	467 0 0	178 1 7
	Samroli				
Kánara	Hosur	1	503 4 10	201 7 2	301 13 8
	Balekope				
	Kondli				

The following Sanitary Committees were abolished :—

Nandgaon	...	...	... Násik.
Chikodi	...	...	... Belgaum.
Bidi	...	...	... Do.
Muddebihal	...	...	... Bijápur.

Except Bidi all were reconstituted as Notified Areas. The balances at the credit of Chikodi and Muddebihal were transferred to the respective Notified Area Committees while the balance at the credit of the Bidi Sanitary Committee was transferred to the District Local Board, Belgaum.

Government have sanctioned the grants of Rs. 180 and Rs. 170, respectively, to the Sanitary Committees at Ranala and Kukurmunda in the West Khándesh and a grant of Rs. 75 to the Sanitary Board at Siddápur in the Kánara Collectorate. Government have also increased the annual grant to the Sanitary Committees in the Thar and Párkar District from Rs. 2,775 to Rs. 2,832 and sanctioned an additional grant of Rs. 2,008 to the Sanitary Committees in the Karáchi District.

The following statement shows the financial position of the Sanitary Committees in various districts during the year ending 31st December 1913:—

Districts.	Number of Sanitary Committees.	Income including balances.	Expenditure.	Closing balance.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	
East Khándesh	7	21,575 2 7	15,433 13 6	6,141 5 1	
West Khándesh	9	11,925 0 2	5,854 12 1	6,070 4 1	
Násik	14	13,615 11 1	5,723 3 11	7,892 7 2	
Thána	3	3,581 11 0	1,841 10 2	1,740 0 10	
Kolába	10	2,863 0 2	1,501 6 8	1,361 9 6	
Ahmednagar	14	13,333 0 0	7,420 0 0	5,913 0 0	
Poona	4	1,006 7 2	599 9 6	406 13 8	
Sholápur	2	1,673 14 6	936 11 0	737 3 6	
Sátára	10	7,843 6 9	4,272 6 4	2,571 0 5	
Ratnágirí	2	4,575 6 2	3,224 8 6	1,350 13 8	
Belgaum	10	8,823 14 9	4,884 12 11	3,939 1 10	
Dhárwár	16	15,427 9 1	6,026 8 7	9,401 0 6	
Bijápur	8	8,189 11 8	3,230 4 4	4,959 7 4	
Surat	8	10,589 8 0	8,224 10 11	2,364 13 1	
Broach	21	17,509 0 9	8,083 7 10	9,425 8 11	
Káira	17	16,306 15 2	6,138 5 3	10,168 9 11	
Panch Maháls	5	4,145 0 9	3,462 14 5	682 2 4	
Ahmedabad	7	3,655 0 0	2,211 0 0	1,444 0 0	
Karáchi	28	14,702 0 0	8,701 0 0	6,001 0 0	
Hyderabad	21	23,857 4 9	8,165 6 3	15,691 14 6	
Thar and Párkar	21	28,395 2 8	10,565 4 11	17,829 13 9	
Lárkháua	38	26,189 4 2	12,682 3 3	13,507 0 11	
Sukkur	13	9,350 1 0	5,447 8 5	3,902 8 7	
Upper Sind Frontier	6	5,974 1 2	3,340 12 9	2,633 4 5	
Nawábsháh	17	17,477 7 0	11,114 10 0	6,362 13 0	

The closing balances of some of the Sanitary Committees in almost all the districts appear to be large. There are no material variations under lighting charges in the year under report.

With a view to furnishing the information required by Government Memorandum No. 7077, dated 15th December 1908, a reference was made to all Collectors asking for a detailed account of the work of the Village Sanitary Boards and Committees in their districts, but little information is forthcoming. The majority of Collectors consider that the Committees are doing valuable work in keeping their villages clean. Their work is certainly hampered by lack of funds, and until the people realise the necessity for efficient conservancy it is unlikely that they will be willing to contribute the necessary money. The Collector of Dhárwár reports that 13 out of the 16 Committees took active steps for providing a pure water-supply and for the protection of the same. In Násik District the Committees seem to have been fairly active. As regards the Bhagoor Committee, the Collector writes:—" The work of the Committee deserves great commendation. The

members are most enthusiastic. A road leading from the village to the river has been repaired in a most thorough way. Much prickly pear has been removed from the village gaothan where it was growing apace." At Wáni, the Collector reports apathy and is reconstituting the Committee round a nucleus of three members who alone attend the meetings. At Deoláli little work has been done but the Mámlatdár reports that there is an improvement under a new chairman. The Deputy Commissioner, Upper Sind Frontier, reports that the Sanitary Committees are trying to improve the water-supply on the lines laid down by the Deputy Sanitary Commissioner in his last tour. There is no doubt that these Committees require constant and patient guidance in their work.

83. It is satisfactory to report that during this year inspection remarks were made in 223 Sanitary Inspection Books. The number of selected villages in which these books are kept was 1,572.

84. Sanitary surveys on a uniform plan of 47 towns and villages were completed by the Deputy Sanitary Commissioners. With regard to these surveys the Deputy Sanitary Commissioner, Sind Registration District, states:— "There are very few towns in the Province for which such reports have not been made, and although the reports were drawn up on the general sanitary requirements of each town rather than with a view to any one special sanitary scheme, they should nevertheless be sufficient to indicate to the District Officer both the choice of the town for a sanitary scheme and the most desirable direction for a scheme in the town selected."

SECTION X.

85. The office of the Sanitary Commissioner was held by Major H. A. Forbes-Knapton, I. M. S., from 1st to 3rd January 1913; by Lieutenant-Colonel T. E. Dyson, I. M. S., from 4th January to 7th July; by Major H. A. Forbes-Knapton, I. M. S., from 8th July to 4th October; and by Major F. H. G. Hutchinson, I. M. S., from 5th October to 31st December 1913.

86. During the year inspections were made of Násik, Sátára, Belgaum, Ahmedabad and Ahmednagar towns. The villages on the catchment area of Lake Fife were visited in connection with the contamination of the Poona water-supply; and a report on the proposed water-supply for Mátherán was prepared after a personal inspection. Alandi was inspected in connection with the Fair and the proposed water-supply. The work and recommendations of the Malaria Survey Party were scrutinised at Khárághoda. A tour of inspection including 40 villages was made in the Ahmednagar Collectorate during the existence of famine conditions. The tour was extended so as to include a few villages in each of Ahmedabad, Kaira and Panch Maháls Districts.

87. The tours of the Deputy Sanitary Commissioners are described in the Report on Vaccination.

F. H. G. HUTCHINSON, M.B., C.M., D.P.H.,
Major, I. M. S.,
Sanitary Commissioner.

Poona, 18th June 1914.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE BOMBAY PRESIDENCY FOR THE YEAR 1913.

The Sanitary Board was reconstituted during the year, the Secretary to Government, General Department, and one Non-Official Member being added. The Board now consists of the following officers:—

> The Commissioner, Central Division, as President with the Secretaries to Government in the General and Public Works Departments, the Sanitary Commissioner, one Non-Official Member and Sanitary Engineer as Members, the latter being also Secretary to the Board.

2. Four meetings were held during the year to consider amongst other matters Water-Supply and Drainage Schemes and the distribution of the grant of rupees one lakh placed at the disposal of the Sanitary Board. The grant was distributed in the following proportion: Northern Division Rs. 20,475, Central Division Rs. 44,725, Southern Division Rs. 24,800, and Sind Rs. 10,000.

3. The projects sanctioned by Government during the year were as follows:—Ahmednagar Water-Supply Rs. 7,51,521, improvements to Bársi Water-Supply Rs. 4,73,087, Sángli Water-Supply Rs. 2,96,862, improvements to Jalgaon Water-Supply Rs. 29,070, Nandurbár Water-Supply Rs. 2,18,000, Ahmedabad Water-Supply (extension) Rs. 8,98,918, and Hyderabad Water-Supply Rs. 37,679.

4. Government were pleased to grant during the year the large sum of Rs. 27,09,740 as grants-in-aid for Sanitary works amongst the various Municipalities in the Bombay Presidency. The principal grants were given as follows:—Karád Water-Supply Rs. 90,000; Bolarwad Improvement Scheme, Broach, Rs. 90,000; paving Manik Nulla, Poona, Rs. 28,000; Drainage Scheme for the Civil Lines and Frere Town Quarters at Karáchi Rs. 2,00,000; construction of Conservancy Lanes, Dhárwár, Rs. 30,000; filling in Tank at Hyderabad Rs. 20,000; improvement to Sholápur Water-Supply Rs. 90,000; Ahmednagar Water-Supply Scheme Rs. 3,20,000; Bársi Water-Supply Rs. 1,50,000; grant to Bombay Improvement Trust for Slum Improvements (experimental) Rs. 4,00,000; Development of Sálsette Rs. 40,000; Dhárwár Town Improvement Scheme Rs. 26,300; opening out congested areas, Belgaum, Rs. 35,000; Town Improvements, Hubli, Rs. 34,500; Jalgaon Water-Supply Rs. 3,50,000; Ahmedabad Water-Supply Rs. 3,74,000; Poona Drainage and Water-Supply Rs. 1,75,000; Minor Sanitary Improvements, Poona, Rs. 1,00,000; and several sums less than Rs. 20,000 for works of minor importance.

5. The following Water-Supply works were either in progress or completed during the year and the expenditure during the year is given in each case:—

Southern Division.

Sángli.—Works completed and handed over to the State, Rs. 30,079.

Hubli, Second Stage.—New rising main and pumping machinery completed, alterations to supply mains in progress and Jewell filters installed, Rs. 39,031. Experimental boring for artesian supply taken to 335 feet without success so far, Rs. 3,920.

Haveri.—Improvements, Rs. 1,419.

Bijápur.—Practically completed, Rs. 1,06,288.

Central Division.

Poona Cantonment.—Providing Steam Engines and Centrifugal Pumps nearly completed, Rs. 45,534.

Poona City.—Settling Tanks and High Level Service Reservoir were completed and the laying of cast iron mains from them was in progress, Rs. 4,41,135 (partly on drainage scheme).

Sholápur Improvements.—Laying 12″ pumping main, construction of quarters, etc., Rs. 20,977.

Nasik.—Completed, Rs. 65,642.

Ahmednagar.—Excavation of puddle trench and waste weir as well as formation of the embankment for the Storage Reservoir in progress, Rs. 1,31,381.

Jalgaon.—Minor improvements to Meherun Tank, Rs. 7,240.

Dhulia.—Raising waste weir and earth work, etc., Rs. 31,953.

Northern Division.

Ahmedabad Improvements.—Alterations to jackwell, new engine and boiler house and new high level service reservoir completed, Rs. 11,477. Improvements to Distribution System, Rs. 5,817.

Thána.—Minor improvements to dam and waste weir of Pokhran Tank, Rs. 1,414.

Alibág.—Minor improvements such as replacing earthen ware pipes with cast iron pipes, raising dam, providing puddle trench, etc., Rs. 3,530.

Pen.—Raising Tank Dam and repairs to waste-weir completed, Rs. 5,874.

Roha Ashtami.—Construction of Service Reservoir in progress, Rs. 1,723.

Sind.

Karáchi.—Extension of water works completed, Rs. 4,97,821.

Hyderabad.—Engine and boiler house at Gidu Bundar, settling tank and improvements to masonry conduit and distribution completed, Rs. 24,230.

6. The following Drainage Works were either in progress or completed during the year and the expenditure during the year is given in each case:—

Southern Division.

Ránnebennur.—Improvements completed, Rs. 7,812.

Ratnágiri.—Draining Gowliwada Nala nearly completed and filling in insanitary tank in progress, Rs. 3,253.

Bijápur.—Drainage of Shaha peth and other parts of town completed, Rs. 11,332.

Bagalkot.—919 feet of U shaped drains completed, Rs. 2,088.

Guledgud.—Minor improvements, Rs. 5,166.

Central Division.

Poona City.—9,942 feet of main sewer and branch sewers 62,979 feet and effluent main 6,378 feet, numerous manholes and flushing tanks, erection of pumping machinery at central and low level stations completed and septic tank at Hadapsar in progress. Considerable difficulty was met with in the sewer work on account of rock and old drains, Rs. 4,41,135 (see water works above).

Yeravda Central Lunatic Asylum.—Completed, Rs. 37,606.

Sholápur.—Minor repairs, Rs. 1,130.

Northern Division.

Ahmedabad.—Improvements to pumping machinery, drains and construction of trough latrines completed, Rs. 73,480. Improvements to sewage farm completed, Rs. 4,700.

Sind.

Karáchi.—Extension of shone system to Civil Lines and Frere Town in progress, Rs. 2,94,130.

Hyderabad.—Improvements to surface drains completed, Rs. 5,591.

7. Projects for numerous new works and improvements to existing Water-Supply and Drainage Schemes were under consideration and preparation. The work is greatly hampered for want of sufficient establishment and properly constituted executive charges. Several municipalities were given practical advice and assistance regarding sanitary matters.

8. There were a large number of bores in progress for artesian water-supplies. Those at Kharaghoda, Gogha and Ahmednagar were completed, the former only proving successful. The pumping tests in the Dholka subartesian supply were successful and a project for a water-supply scheme from this source is under preparation. The appointment of an expert Boring Engineer, Mr. Dooris, has been most satisfactory.

9. The Mechanical Engineer to Government, Mr. G. H. Thiselton-Dyer, inspected the pumping plants and machinery at the majority of the water works in the Presidency and Sind and tendered very valuable advice which, however, is not properly appreciated in some few cases. This appointment has proved most successful also and the Mechanical Engineer's services are of great value in the preparation of pumping projects.

10. An itinerant analyst to the Sanitary Board, Dr. Mama, was appointed in September 1913 to carry out bacteriological tests, and this appointment promises to prove extremely valuable. During the year important tests were carried out by him at Lake Fife, Poona Cantonment and Ahmedabad water works and his reports are under consideration.

11. The Sanitary Engineer visited Aden to report on the proposals for the water-supply from Lahej in conjunction with the Commissioner, Central Division, and Government have decided to carry out further tests on the water.

He also visited several towns in the Presidency and gave advice to the Local Bodies where necessary. A considerable portion of his time is now occupied in the preparation of Water-Supply and Drainage Schemes as well as the examination of the plans for school buildings which require to be passed by him from a sanitary and hygienic point of view. This latter portion of his work is now occupying a considerable amount of his time. There is a rapidly increasing demand for his assistance in the actual preparation of projects.

H. O. B. SHOUBRIDGE, M.I.C.E.,

Secretary, Sanitary Board,

Bombay Presidency.

APPENDIX II (*a*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBA FOR THE YEAR ENDING 31ST DECEMBER 1913.

I.—SUMMARY.

The following summary shows the inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the harbour and docks during the year ending 31st December 1913.

992 vessels of all sorts with 181,497 crew and passengers were examined as against 1,058 vessels with 194,954 crew and passengers during the preceding year.

The clothing, bedding and other articles of 96,543 members of crews and passengers of outgoing and incoming vessels and of members of crews of vessels lying in the Port were disinfected. Of these 85,588 were Asiatic and African members of crews, third class or deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India and 10,955 were members of crews, passengers and pilgrims who arrived by vessels o which cases of infectious diseases had occurred during the voyage or while lying in the Port.

29 vessels on which cases of infectious diseases had occurred were disinfected, and 20 vessels which carried pilgrims to Jeddah were thoroughly cleansed and freed from rats, cockroaches, etc., by means of sulphur dioxide gas generated in a Clayton apparatus. Besides the outgoing pilgrim-ships 3 incoming vessels, 30 outgoing vessels and 1 ship lying in the harbour were also fumigated. In all 54 vessels of all sorts were fumigated and 29 vessels were disinfected. 49 persons among whom cases of small-pox had occurred were vaccinated. In addition to this number 11,198 outgoing pilgrims were vaccinated by a special vaccinating staff lent by the Municipality under the supervision of the Police Commissioner. Many pilgrims had also been vaccinated in other Provinces and Native States before their departure for Bombay. Including these it is probable that nearly 75 per cent. of the departing pilgrims were thus afforded protection from contracting small-pox in the Hedjaz.

II.—OUTGOING VESSELS.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P., dated the 14th June 1899, and No. 2671-P., dated the 2nd October 1902, the medical examination of all vessels, crews and passengers proceeding to ports out of India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with berth accommodation, of fourth class and deck passengers and of all Asiatic and African servants who sailed on such vessels were carried out immediately before they left the Port of Bombay.

3. 808 outward bound vessels (including Asiatic sailing craft) with 74,637 crew and 64,628 passengers or a total of 139,265 persons were inspected as against 841 vessels with 78,394 crew and 71,929 passengers or a total of 150,323 persons during the preceding year.

4. The bedding, boxes and suspected articles of clothing, etc., of 47,233 Asiatic and African members of crews and of 37,363 third, fourth class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the clothing, bedding and other effects of 824 members of crews and 168 passengers who sailed in Asiatic sailing craft for ports out of India were also disinfected. Thus the total number of outward bound crew and passengers whose clothing, bedding, etc., were disinfected comes to 85,588 during the year under report as against 85,022 during the year 1912.

5. A few vessels had cases of infectious diseases among their crews and passengers within 12 days prior to their departure from this Port. The Bills of Health granted to these mentioned the illness which had occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of the disease on board or its introduction at other ports.

III.—INCOMING VESSELS.

6. In accordance with the Rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, *vide* Notification, General Department (Plague), No. 1645-P., dated the 12th March 1900, and Notification, General Department, No. 625, dated the 1st February 1905, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P., dated the 31st March 1900, medical inspection and disinfection of vessels which were actually infected or suspected to be infected were carried out. All pilgrim-ships and all vessels which arrived from East African ports were also inspected on arrival.

7. 176 incoming vessels of various kinds with crews aggregating 13,142 persons and 29,793 passengers were inspected during the year. Of the 176 vessels inspected 21 were found to have had cases of infectious diseases on board at the time of arrival or during the

voyage. 3 of these vessels were from East African ports with 262 crew and 774 passengers, among whom 4 cases of jigger had occurred. The cases were removed to the Gokuldas Tejpal Hospital for treatment. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. The clothing and bedding of the crews were also disinfected. 11 were vessels from Jeddah with 848 crew and 7,388 pilgrims, among whom 12 cases of chicken-pox had occurred. The patients on arrival here were removed to the Arthur Road Hospital for treatment. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations up-country. The vessels were disinfected and three of them were fumigated by the Clayton apparatus, the bedding and effects of crews being separately disinfected. The remaining 7 vessels arrived from other ports with 907 crews and 1,386 passengers, among whom 2 cases of small-pox, 10 cases of measles and 2 cases of chicken-pox had occurred. The vessels and the clothing and bedding of the crew and passengers were disinfected.

IV.—Infectious Diseases on Vessels arriving and departing and in the Harbour and Docks.

8. Tabular Statement No. 1 gives the number of cases of infectious diseases which occurred on vessels arriving, departing and in the harbour.

It will be seen that 30 cases occurred on vessels arriving as follows:—2 cases of small-pox, 10 cases of measles, 14 cases of chicken-pox and 4 cases of jigger.

At the inspections of crews and passengers of outgoing vessels 2 cases of chicken-pox were detected. 1 case of small-pox and 2 cases of measles were reported to have been landed at Aden from certain ships which arrived there from Bombay.

1 case of plague, 2 cases of cholera, 1 case of small-pox, 2 cases of measles and 5 cases of chicken-pox occurred on vessels including Asiatic sailing craft lying in the harbour and docks.

9. Tabular Statement No. 2 gives separately details of infectious diseases on vessels in the harbour and docks. The clothing and bedding of the crews of these vessels aggregating 297 persons were disinfected. All these vessels were thoroughly disinfected. One ship on which a plague case had occurred while she was lying in the harbour was thoroughly fumigated.

V.—Disinfection and Fumigation of Ships.

10. During the year under report 83 vessels of all sorts were disinfected under the personal supervision of the Port Health Officer or of one of the Port Health Staff.

11. The fumigation of 54 vessels including 20 outward and 3 inward pilgrim-ships was carried out by means of the Clayton process under the supervision of the Port Health Officer.

12. The Port Disinfection Station received every Monday clothing and bedding from various hospitals for disinfection. 541 bundles containing such clothing and bedding were disinfected as against 308 during the previous year.

VI.—General Health of the Shipping.

13. During the year under report 1,032 persons connected with the shipping were admitted into the various hospitals in the city. The St. George's Hospital admitted 436 European patients, of whom 13 died, 403 were discharged cured and 20 remained under treatment after the 31st December 1913. The Jamsetji Jijibhoy Hospital admitted 182 Asiatic patients, of whom 33 died; the Gokuldas Tejpal Hospital 404 Asiatics, of whom 60 died; and the Arthur Road Hospital 10 Asiatics, all of whom were discharged cured.

14. No death occurred in connection with the cleansing of bilges of ships during the year. There were 270 minor accidents on board of vessels which were lying in the harbour or docks.

VII.—Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

15. In accordance with the Government of India's Notification, Home Department (Sanitary), No. 1606, dated the 13th July 1908, and Government Resolution, General Department, No. 4361, dated the 18th August 1909, and Government of India's Notification, Department of Education (Sanitary), No. 635, dated Simla, the 24th April 1912, reproduced in Bombay Government Notification, General Department, No. 2759, dated 30th April 1912, the ports of Bombay and Karáchi were open for the embarkation of Mahomedans making a pilgrimage to Mecca *viâ* Jeddah. Before the pilgrims embarked at Bombay the ships were thoroughly cleansed and freed from rats by means of the Clayton process. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark.

16. The names of the ships, the numbers of pilgrims carried by them and the dates on which they left Bombay for Jeddah are given below:—

	Name of vessel.	Number of pilgrims sailed.	Date of departure.
1.	S.S. "Naderi" ...	201 ...	18th May 1913.
2.	S.S. "Mansuri" ...	695 ...	6th July 1913.
3.	S.S. "Lawoe" ...	623 ...	26th do.
4.	S.S. "Homayun" ...	812 ...	30th do.
5.	S.S. "Purnea" ...	584 ...	14th August 1913.
6.	S.S. "Mansuri" ...	687 ...	21st do.
7.	S.S. "Koweit" ...	1,131 ...	22nd do.
8.	S.S. "Lawoe" ...	671 ...	13th September 1913.
9.	S.S. "Kanzler" ...	663 ...	13th do.
10.	S.S. "Nurani" ...	946 ...	15th do.
11.	S.S. "Homayun" ...	812 ...	18th do.
12.	S.S. "Koweit" ...	1,126 ...	25th do.
13.	S.S. "Budrie" ...	637 ...	3rd October 1913.
14.	S.S. "Rahmani" ...	698 ...	7th do.
15.	S.S. "Islami" ...	733 ...	10th do.
16.	S.S. "Itonus" ...	1,078 ...	10th do.
17.	S S. "Mansuri" ...	690 ...	11th do.
18.	S.S. "Bahrein" ...	504 ...	20th do.
19.	S.S. "Alfeld" ...	908 ...	21st do.
20.	S.S. "Koweit" ...	1,120 ...	23rd do.
		15,319	

17. It will be seen that 15,319 pilgrims left during the season as against 16,024 in the previous year.

18. The classification of the pilgrims is as follows:—

210	Bombay City.	207	Chinese Territory.
754	Bombay Presidency (including Sind).	703	Afghanistan.
		409	Beluchistan.
733	Madras Presidency and Malabar.	106	Persia.
4,916	Bengal Presidency.	720	Russian Territory.
729	Eastern Bengal and Assam.	28	Arabia.
1,202	United Provinces and Oudh.	2	Africa.
1,360	Punjáb and North-West Frontier.	5	Turkey.
78	Central Provinces.	726	Java.
57	Central India.	2	Nepal State.
28	Burma.	17	French India.
7	Ceylon (British Colony).	1,255	Unclassified.
1,065	Native States.		
11,139		4,180	

Total ... 15,319

19. 11,198 outgoing pilgrims were vaccinated before starting by a special staff placed under the Police Commissioner by the Municipality. Besides these, many pilgrims from other Provinces and Native States had been vaccinated before leaving their homes for Bombay. It is thus probable that three-fourths of the pilgrims had been persuaded to voluntarily undergo vaccination and, considering that most of these were illiterate and many fanatical, it reflects the greatest credit on the Pilgrim Department under the Commissioner of Police and others who aided in persuading so large a percentage to avail themselves of the measure. It is hoped that the degree of immunity thus afforded will materially reduce the risk of infection in the Hedjaz.

20. A fully equipped plague observation station, capable of receiving an entire ship-load of pilgrims from a plague-infected vessel for treatment under Article 21 of the Paris Convention was established at Perim. All the pilgrim ships, after having been inspected at Aden or Perim, called at Camaran where they landed their passengers to undergo observation according to Turkish rules before the Turkish authorities allowed them to proceed to Jeddah.

21. From the medical diaries of the doctors in medical charge of pilgrim-ships it appears that there were 61 deaths on board these ships between Bombay and Jeddah. The causes are attributed to Malaria, Old Age, General Debility, Dysentery, Heart Disease, Sun-stroke, Rachitis & Hydrocephalus, Anæmia, Pneumonia, Bronchitis, Acute Peritonitis, Hemiplegia, etc.

22. During the season under report no doctor was appointed to the medical charge of a pilgrim-ship unless he was in possession of either a degree, or at least the license of a recognized Indian University, or the qualification of a Military Assistant Surgeon. The class of medical officer offering was well up to the average.

B.—Inward Pilgrim Traffic.

23. During the year under report 8,828 pilgrims of the previous year's Haj, of whom 36 were stowaways, and 4,967 of that of 1913 arrived from Jeddah in 19 vessels. The names of the ships and the number of pilgrims brought by each vessel as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay are tabulated in Statement No. 3 which is attached to this report.

24. The total number of deaths which occurred at sea among the returning pilgrims was 118. The chief causes were Old Age, General Debility, Dysentery, Diarrhœa and Privation.

25. Four pilgrim-ships had during their voyage from Jeddah to Bombay 12 cases of chicken-pox, 8 of which were detected at the disinfection shed while the pilgrims were undergoing disinfection of their clothing and bedding. The patients were removed to the Arthur Road Hospital for treatment. 7,388 pilgrims, among whom the cases of chicken-pox had occurred, had their clothing and bedding disinfected before they were handed over to the Protector of Pilgrims for despatch to their homes. The effects of 848 members of crews of the infected ships were also disinfected. The above number includes 441 members of crews and 3,839 pilgrims of 6 non-infected ships whose clothing and bedding were disinfected on account of high mortality.

VIII.—Emigration Traffic.

26. Owing to the prevalence of plague in the City of Bombay the emigration traffic has been suspended since the year 1897.

IX.—Sanitary State of the Harbour and Foreshore.

27. The sanitary state of the harbour and of the various bandars, basins and docks was fairly satisfactory.

X.—Cholera, Small-pox and Plague in the City of Bombay.

28. During the year under report 125 deaths from cholera, 212 deaths from small-pox and 2,609 deaths from plague occurred in the City of Bombay as against 1,790 deaths from cholera, 979 deaths from small-pox and 1,717 deaths from plague during the preceding year.

XI.—Establishment.

29. Lieut.-Colonel J. Crimmin, C.B., V.C., C.I.E., V.D., D.P.H., I.M.S., acted as Port Health Officer from 1st January to 6th February 1913 and again from 21st March to 31st May 1913. Lieut.-Colonel J. G. Hojel, M.B., I.M.S., from 1st June to 10th June 1913, Major J. L. Marjoribanks, M.D., D.P.H., I.M.S, from 14th July to 14th October 1913, and the undersigned was in charge from 1st February to 20th March, 11th June to 13th July and 15th October to the end of the year.

30. The following list shows the names of the medical officers and subordinates who did duty under the Port Health Officer from time to time during the year :—

Names.	Period of service.
	Y. m. d.
Dr. (Miss) S. Smith	1 0 0
Assistant Surgeon H. F. Otto, I.S.M.D.	1 0 0
Sub-Assistant Surgeon B. M. Bhatt	1 0 0
Do. do. F. H. Anklesaria	0 9 0
Do. do. A. N. Seth	0 2 23
Do. do. H. A. Lewis	0 2 11
Do. do. K. B. Shah	0 1 18

31. The above medical staff carried out their respective duties, which were of a very onerous and responsible nature, with the same energy, tact and cheerfulness which they have hitherto displayed in the performance of the same.

32. The Sanitary Police Staff under the inspectorship of Mr. Dixon carried out their onerous duties to my entire satisfaction.

Mr. Shamrao S. Dhurandhar.
Mr. Dattatraya V. Gokhale.

33. The marginally noted members of the office staff under Mr. Ramrao G. Kamalakar worked hard and well and to my entire satisfaction.

34. The office peons and all the members of the disinfection and steam launch establishments worked satisfactorily.

35. Moulvi Abdulla Ahmed, the Protector of Pilgrims, Mrs. M. Lennon, Lady Superintendent of Pilgrims, Mr. H. M. Robottom, the Inspector of the Preventive Service, and the Dock Police under Superintendent J. Walton rendered much help to the Port Health Staff while carrying out the inspection and disinfection of pilgrims and in connection with their despatch from the disinfection station to the steamers by which they travelled.

36. I am also indebted for valuable assistance in the embarkation of pilgrims and otherwise to Mr. C. R. Watkins, Assistant Collector of Customs, who gave much of his time in order to help in securing harmonious working between the different departments concerned.

37. The shipping agents and commanders of vessels, as a rule, observed the regulations, and carried out cheerfully the orders framed in connection with the Paris Sanitary Convention.

W. E. JENNINGS, M.D., D.P.H.,
Lieut.-Colonel, I. M. S.,
Health Officer of the Port.

Bombay Port Health Office:
Town Customs House, dated 5th March 1914.

TABLE No. 1.

The following tabular statement gives a summary of the Shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1913 :—

Vessels including country craft.	Number of vessels inspected.	Number of persons including crew of vessels.	Number of Asiatic crew and 3rd Class or deck passengers disinfected.	Number of vessels.		Number of persons vaccinated.	Diseases and number of cases of each						
				Disinfected.	Fumigated.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Sleeping sickness.
1913.													
Entered	176	41,935	10,658	21	3	49	...	...	2	10	14	4	...
Left	808	139,265	85,588	...	50	11,198	...	...	1	2	2	...	...
In harbour during the year	8	297	297	8	1	...	1	2	1	2	5	...	...
Total ...	992	181,497	96,543	29	54	11,247	1	2	4	14	21	4	...
Total for 1912 ...	1,058	194,954	97,954	33	54	10,667	13	17	67	7	13	5	...

TABLE No. 2.

The following table includes all steamers, square-rigged vessels and Native sailing craft which became infected while lying in the Port of Bombay during the year 1913 :—

Months.	Number of persons who were attacked with infectious disease at the Bunder and in Docks.		Total number of infected vessels.	Total number of infectious disease in the Bombay Harbour.					Number of crew disinfected.
	Plague.	Cholera.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	
1913.									
January	...	...	2	...	...	...	2	...	...
February	...	...	1	...	1	...	...	2	89
March	...	...	2	...	...	...	...	3	188
April	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...
June	...	...	1	1	...	...	...	...	10
July	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...
September	...	...	1	...	1	...	...	...	10
October	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...
December	...	...	1	...	...	1	...	...	...
Total ...	...	...	8	1	2	1	2	5	297
Total for 1912 ...	...	1	24	6	15	3	...	7	1,443

TABLE No. 3.

Statement showing the number of pilgrims who returned from Mecca by vessels during the year 1913 :—

No.	Name of Ship.	Date of arrival.	Number of crew inspected.	Number of pilgrims inspected.	Number of deaths during voyage.	Number of cases of infectious diseases on board during voyage or arrival.		Number of persons vaccinated.	Remarks.
						On arrival.	During voyage.		
1	S.S. "Mansuri" ...	7th January 1913 ...	79	656	6	...	...	...	
2	S.S. "Budrie" ...	26th do. ...	80	622	2	...	...	...	
3	S.S. "Minich" ...	27th do. ...	57	1,143*	16	3	...	...	3 cases of chicken-pox detected at the time of disinfection. * Includes 36 stowaways.
4	S-S. "Homayun" ...	29th do. ...	95	803	5	3	...	...	3 cases of chicken-pox detected at the disinfection shed.
5	S.S. "Nadir" ...	2nd February 1913 ...	68	509	9	...	...	...	
6	S.S. "Tantah" ...	4th do. ...	50	711	5	...	...	...	
7	S.S. "Mahommadi" ...	4th do. ...	74	629	2	...	...	...	
8	S.S. "Koweit" ...	9th do. ...	92	1,128	4	...	...	...	
9	S-S. "Alavi" ...	22nd do. ...	76	756	4	1	...	...	1 chicken-pox case detected at the disinfecting shed.
10	S.S. "Mansuri" ...	28th do. ...	79	268	1†	...	...	...	† One death from suicide. A woman said to be of unsound mind, aged 60, threw herself overboard.
11	S.S. "Firoozi" ...	2nd March 1913 ...	65	734	...	3	...	...	2 cases of chicken-pox on arrival, 1 detected at the disinfection shed.
12	S.S. "Mansuri" ...	20th do. ...	79	667	2	2	...	...	2 cases of chicken-pox on arrival.
13	S.S. "Firoozi" ...	23rd May 1913 ...	65	202	3	...	...	...	
14	S-S. "Homayun" ...	2nd December 1913 ...	95	720	3	...	...	...	
15	S.S. "Koweit" ...	4th do. ...	89	1,098	10	...	...	...	
16	S.S. "Mansuri" ...	5th do. ...	79	684	7	...	...	...	
17	S.S. "Alfeld" ...	9th do. ...	95	904	15	...	...	...	
18	S.S. "Lawoe" ...	10th do. ...	81	645	8	...	...	...	
19	S.S. "Nurani" ...	11th do. ...	70	916	16	...	...	...	
			1,468	13,795	118	12	...	...	

APPENDIX II (*b*).

ANNUAL REPORT OF THE HEALTH OFEICER OF THE PORT OF KARACHI FOR THE YEAR ENDING 31ST DECEMBER 1913.

Port Health Office and Disinfection Station,
Kiamari, Karachi, January 1914.

OUTGOING VESSELS.

During the year under report 474 steam vessels outward bound for Ports out of India, were inspected by the Health Officer of the Port and were given Bills of Health as against 606 during the preceding year. Of this number 287 were proceeding to Aden, the Red Sea and Europe and 187 to other Ports out of India including the Persian Gulf. Bills of Health were also given after inspection to 292 country boats, as against 273 during the preceding year. The native crews and deck passengers of all steamers and country craft proceeding to ports out of India were medically inspected, their boxes, if any, scrubbed and finally rinsed out with a solution of perchloride of mercury, and their bedding and clothing disinfected by steam in the Equifex Stove at the Port Health Disinfection Station. Boots and shoes when requiring disinfection were exposed to the action of formaldehyde gas in the apparatus specially designed for this purpose.

INCOMING VESSELS.

One hundred and three steam vessels and 27 country boats were inspected for the existence of infectious disease, as against 75 and 27 in the preceding year. Of the 103 steamers, one was a pilgrim vessel from Jeddah, seven were troop-ships, 63 hailed from East Africa and the remaining 32 from various other ports. The 27 country boats were all from East African Ports. Only such boats are inspected as hail from infected Ports, or as are Troop-ships or pilgrim vessels, or in the case of which, from some other reason, this course is deemed necessary.

SYNOPSIS OF INSPECTION AND DISINFECTION PERFORMED.

The following tabular statement shows the number of vessels, crews and passengers inspected during the year :—

	Vessels.			Crews and passengers.		
	Steamers.	Country boats.	Total.	Steamers.	Country boats.	Total.
Incoming	103	27	130	21,365	455	21,820
Outgoing	474	292	766	63,761	3,230	66,991
					Total ...	88,811

Of the 88,811 crews and passengers who were medically inspected on their arrival at or departure from the Port of Karáchi, 44,688 also had their bedding and clothing disinfected. The corresponding figures for last year were 90,412 and 44,040, respectively.

MISCELLANEOUS DISINFECTION.

On several occasions during the year the clothing and bedding of patients suffering from infectious disease and "contacts" were received for disinfection from the Epidemic Diseases Hospital, the Civil Hospital and other Institutions in Karáchi, and from Private Individuals, and were duly disinfected by steam in the Equifex Stove.

P. & O. MAIL PASSENGERS.

Two hundred and twenty Saloon passengers proceeding to Europe *viâ* Bombay were medically inspected on shore at Karáchi and given passes for direct transhipment to the P. & O. Mail Steamers at Bombay.

Bombay Passengers for the Persian Gulf.

Since the opening of the new Disinfection Station at Kiamari, the Medical inspection and disinfection of passengers from Bombay for the Persian Gulf has been discontinued in Bombay. These passengers are now brought ashore at Kiamari for medical inspection and disinfection before leaving India for the Persian Gulf, the convenient situation of the Disinfection Station here making this course preferable to that formerly in vogue.

Plague.

No cases of this disease were detected during the year. A telegram was received from the Port Health Officer, Aden, on the 21st March that a case of bubonic Plague of one of the European crew of the S. S. "Trieste" had been landed at Aden and the Ship disinfected there. On arrival of the "Trieste" at Karáchi on the 26th March the crew and passengers were medically examined and found to be healthy. The forecastles, latrines, etc., were duly disinfected and repainted, and the crew and passengers disinfected with their clothing and baggage before the vessel left again for Colombo.

Cholera.

No cases of this disease were detected during the year.

Small-pox.

Four cases of small-pox were removed from incoming vessels to the Epidemic Diseases Hospital, *viz.*, one from the S. S. "Crastafels" on 17th March, one from S. S. "Lhasa" on 7th April, one from S. S. "Linga" on 10th April and one from the S. S. "Dumra" on 11th December. The usual precautionary measures were carried out on board the steamers concerned, on their arrival, and when they left for Bombay information for the occurrence was sent to the Health Officer of that port by telegram.

The S. S. "Naderi" which arrived at Karáchi on the 29th March, reported that a case of small-pox had occurred on board amongst the deck passengers. The patient had been landed at Bunder Abbas and the ship's 'tween decks disinfected and whitewashed there. On arrival here the crew and passengers were medically inspected and found to be healthy.

At the usual medical inspection of deck passengers before embarkation, three cases of small-pox were detected during the year and not allowed to proceed to their destinations.

Chicken-pox.

Three cases of this disease were removed to the Epidemic Diseases Hospital from incoming vessels, *viz.*, one from the S. S. "Faris" on 3rd January and two from the S. S. "Putiala" on 5th December. In addition, one deck passenger per S. S. "Dwarka" from Bombay was found on medical inspection here on 29th March to be suffering from the disease. He was not allowed to proceed further on his journey.

Measles.

Two cases of this disease were met with during the year. One case occurred amongst the troops on board R. I. M. S. "Dufferin" when she arrived here on 9th January 1913. The patient and seven contacts were taken charge of on arrival by the Military Medical Authorities from whom, however, their kit and bedding were received later for disinfection in the usual manner. The S. S. "City of York" which arrived here from Liverpool *vid* Bombay on the 19th May, reported that five cases of Measles had occurred amongst the cabin passengers *en route* between Liverpool and Bombay and one case between Bombay and Karáchi. On arrival of the vessel at Karáchi, the latter case, a European Apprentice, was removed to the Epidemic Diseases Hospital. The cabins which had been occupied by these six cases were duly disinfected and also the mattresses, bedlinen, cushions, rugs, etc., which had been in contact with the patients during the voyage.

Jigger.

No cases of this disease were detected during the year.

Sleeping-Sickness.

No cases of Sleeping-sickness were detected during the year.

Deaths from other diseases on ship board reported.

During the year under report, 45 deaths from non-infectious disease, *e. g.*, pneumonia, bronchitis, general debility, consumption, diarrhœa, privation, etc., were reported as having occurred on board vessels either in Karáchi Harbour or during the voyage to Karáchi. Of this number nine deaths occurred on the pilgrim ship.

Cases of other diseases detected.

Seventeen cases of non-infectious illness of all sorts, *e.g.*, pneumonia, enteric fever, pyrexia, dysentery, etc., amongst ship's crews and passengers were detected during the course of the usual medical inspection of crews and passengers before embarkation, of which one case was sent to his home and 16 to the Civil Hospital for treatment.

Emigrants.

Five hundred and one artisans proceeding to Mombassa, East Africa, *vid* Bombay for service on the Uganda Railway, were medically examined by the Health Officer of the Port, as Medical Inspector of Emigrants, and certificates given that they were in a fit state of Health to undertake the voyage to East Africa, as required in section (1) of the Indian Emigration Act of 1908. The segregation period of five days for the Uganda Railway Emigrants has been discontinued as per Government Resolution, General Department, No. 8788, dated 19th December 1912.

Red Sea Pilgrim Traffic.

A.— Outward.

No pilgrim ship sailed from Karáchi during the year.

B.—Inward.

One home-coming pilgrim ship arrived in Karáchi during the year. The following table shows the number of pilgrims, the name of the ship, and other particulars :—

No.	Name of Steamer.	Date of arrival.	Number of crew.	Number of Pilgrims for Karáchi.	Number of Pilgrims for Bombay.	Number of deaths from Jeddah to Aden.	Number of deaths from Aden to Karáchi.
1	S. S. Islami ...	2nd December 1913.	85	730	...	3	6

The causes of the nine deaths were attributed to old age, privation, pneumonia and diarrhœa. The crew and pilgrims were medically inspected on arrival and found to be healthy. There was no infectious or contagious disease on board. As required by statute, the ship carried a qualified doctor, a compounder, a male attendant and a female attendant and maintained a hospital and steam Disinfector in good working order. This staff was inspected and all arrangements found satisfactory.

Clayton Apparatus.

During the year the Clayton Apparatus was used to fumigate six vessels, as shown in the following table :—

No.	Name of Vessel.	Date of Fumigation.	Reasons.
1	S. S. "Mahommedi" ...	28th March 1913 ...	At the request of the Agent.
2	S. S. "Mahommedi" ...	10th May 1913 ...	Do.
3	S. S. "Schildturm" ...	6th August 1913 ...	Do.
4	S. S. "Nurani" ...	17th October 1913 ...	Do.
5	S. S. "Kybfels" ...	12th November 1913 ...	Do.
6	S. S. "Islami" ...	3rd December 1913 ...	Do.

Staff.

The post of Health Officer of the Port was held by Dr. H. C. Venis from 1st January until the 30th November 1913 and by Captain B. Higham, I. M. S., from 1st December until the end of the year. No change has taken place in the rest of the staff who have as heretofore performed their duties in a very efficient and admirable manner. Special commendation is due to Assistant Surgeon A. H. MacGregor, I.S.M.D., who is indefatigable in his performance of the duties which fall to his share and whose energy and efficiency are worthy of the highest praise.

BUILDINGS.

The Port Health Office and Disinfection Station occupied the old premises at Grass Bunder from 1st to 27th January, on which latter date the move to the new quarters at Kiamari was made. The new buildings were found convenient of access for crews and passengers and well suited for their purpose except that the shed accommodation was inadequate when large ships were being dealt with. A new inspection shed was sanctioned in Government Resolution No. C.W.-1109 P. W. D., dated 3rd November 1913, and erected by the Public Works Department at a cost of Rs. 2,481. Yet another shed for accommodating Karáchi passengers awaiting admission to the Disinfection Station has been applied for and, I believe, sanctioned, to be erected on an unoccupied piece of land in the compound, but the work has not yet been commenced.

The single Equifex Stove with which so far the whole of the disinfection has been performed is inadequate for the task expected of it. A second and larger engine has been sanctioned and will be erected in the course of a few months. It is anticipated that the Disinfection Station thus augmented will be adequate for present requirements without, however, leaving much margin for future expansion.

B. HIGHAM,

Captain, I.M.S.,

Health Officer of the Port, Karáchi.

APPENDIX II (*c*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF ADEN FOR THE YEAR 1913.

I.—General Remarks.

Shipping.—1,593 Steamers and square rigged vessels were granted bills of health during the year.

Of the above number 994 under the British flag and 599 under Foreign flags.

Bills of health, issued to the vessels from infected ports, were annotated according to the circumstances of each case.

1,450 bills of health were issued to buggalows during the year.

The accompanying table A gives a list of vessels on board of which infectious diseases existed on arrival. In case of these vessels all possible sanitary precautions were taken on arrival at Aden to prevent the spread of disease.

Vessels and native craft arriving from Berbera, the Somali coast and from East Africa were personally inspected and certified free from small pox, jigger and sleeping sickness.

The following cases of infectious diseases were landed from the shipping :—

Small-pox	4	exclusive of cases from pilgrim ships.
Measles	5	
Chicken-pox	2	
Plague	1	
Scarletina	2	

List of ships on board of which the cases of infectious diseases existed on arrival at this port during the year ending 31st December 1913 :—

Date.	Name of ship.	Nationality.	From	To	Number of cases.	Remarks.
16th February 1913.	Caledonia ...	French ...	Marseilles ...	Normia ...	1	Small-pox on board.
23rd „ 1913	Mongolia ...	British ...	London ...	Sydney ...	1	Do.
25th „ 1913.	Egypt ...	„ ...	Bombay ...	London ...	1	Modified small-pox landed.
27th „ 1913.	Neuralia ...	„ ...	Calcutta ...	„ ...	1	Small-pox landed.
8th March 1913 ...	Bremen ...	German ...	Yokohama ...	Bremen ...	1	Convalescent small-pox landed.
12th „ 1913 ...	Dunvegan castle ...	British ...	London ...	Durban ...	1	Scarlet fever landed.
21st „ 1913 ...	Trieste ...	Australian ..	Trieste ...	Calcutta ...	1	Bubonic plague landed.
23rd „ 1913 ...	Malwa ...	British ...	London ...	Sydney ...	1	Measles landed.
4th April 1913 ...	Zeiten ...	German ...	Bremen ...	Australia ...	1	Suspicious small-pox landed.
8th „ 1913 ...	Arabia ...	British ...	Bombay ...	London ...	1	Suspicious measles.
12th „ 1913 ..	Tremorrah ...	„ ...	Akyab ...	Port Said ...	1	Modified small-pox landed.
„ „ 1913 ...	Gurkha ...	„ ...	London ...	Natal ...	2	1 measles and 1 scarletina convalescent.
18th July 1913 ...	Ville de la Ciotet ...	French ...	Normia ...	Marseilles ...	1	Measles landed.
16th „ 1913 ...	Himalaya ...	British ...	Bombay ...	London ...	1	„
2nd August 1913 .	Zeiten ...	German ...	Bremen ...	Sydney ...	1	Plague on board.
7th „ 1913 .	Borneo ...	British ...	London ...	Calcutta ...	2	Chicken-pox.

II.—Pilgrim Traffic.

48. Pilgrim ships carrying pilgrims, passed through this port during the year, all were medically inspected, but not granted pratique :—

Year.	Number of ships.	Number of pilgrims.	Number of deaths.	Remarks.
1913	48	35,279	63	

III.—Table A.

List of vessels not carrying pilgrims on board of which infectious diseases existed on arrival at Aden:—

Number of ships.	Number of cases landed.	Number of cases died.	Number of cases recovered.	Average of cases per ship.	Average stay in hospital of each patient.	Remarks.
16	10	*Nil.*	10	1	16·2	

IV.—The following are the names and other information regarding pilgrim ships which passed through Aden during the year under report:—

No.	Date and Month.	Names of vessels.	Nationality.	From	To	Declared number of pilgrims.	Number of cases of infectious diseases.	Deaths.
1	17th January 1913 ...	S. S. "Budrie" ...	British ...	Jeddah ...	Bombay ...	635	.....	...
2	" " ...	" "Masletaro ..	" ...	" ...	Persian Gulf.	578	.....	...
3	20th " ...	" "Homayun" .	" ...	" ...	Bombay ...	811	.....	1
4	24th " ...	" "Nadri" ...	" ...	" ...	" ...	515	.....	3
5	26th " ..	" "Mohamdi" .	" ...	" ...	" ...	631	.....	...
6	1st February 1913...	" "Koweit" ...	" ...	" ...	" ...	1,136	.....	...
7	13th " 1913...	" "Alavi" ...	" ...	" ...	" ...	754	.....	1
8	18th " 1913...	" "Mansuri"...	" ...	" ...	" ..	400	.....	...
9	21st " 1913 ..	" "Ferozi" ...	" ...	" ...	" ...	760	.....	3
10	12th April 1913 ...	" "Mansuri" ...	" ...	" ...	" ...	669	.....	...
11	15th May 1913 .	" "Ferozi" ...	" ...	" ...	" ...	210	.....	1
12	28th " 1913 ...	" "Nadri" ...	" ...	Bombay ...	Jeddah ...	203	.....	...
13	18th July 1913 ...	" "Mansuri" ...	" ...	" ...	" ...	693	.....	2
14	8th August 1913 ..	" "Lamoe" ...	" ...	" ...	" ...	625	.....	...
15	18th " 1913 ...	" "Humayun" .	" ...	" ...	" ...	808	.....	4
16	21st " 1913 ...	" "Purnia" ...	" ...	" ...	" ...	583	.....	1
17	1st September 1913 .	" "Koweit" ...	" ...	" ...	" ...	1,127	.....	4
18	" " ...	" "Mansuri" ...	" ...	" ...	" ...	685	.....	3
19	5th " ...	" "Rahmani" .	" ...	Bassra ...	" ...	453	.....	...
20	21st " ...	" "Kauzlie" ...	" ...	Bombay ...	" ...	662	.....	1
21	23rd " ...	" "Nurani" ...	" ...	" ...	" ...	945	.....	1
22	25th " ...	" "Lawai" ...	" ...	" ...	" ...	676	.....	...
23	26th " ...	" "Bahram" ...	" ...	Bushire ...	" ...	488	.....	...
24	27th " ...	" "Humayun" .	" ...	Bombay ...	" ...	812	.....	1
25	2nd October 1913 ...	" "Koweit" ...	" ...	" ...	" ...	1,126	.....	...
26	12th " ...	" "Budrie" ...	" ...	" ...	" ...	634	.....	3
27	16th " ...	" "Rahmani" .	" ...	" ...	" ...	697	.....	1
28	18th " ...	" "Itomus" ...	" ...	" ...	" ...	1,078	.....	...
29	" " ...	" "Islami" ...	" ...	" ...	" ...	732	.....	1
30	" " ...	" "Ferozi" ...	" ...	" ...	" ...	860	.....	2
31	19th " ...	" "Mansuri" ...	" ...	" ...	" ...	689	.....	3
32	28th " ...	" "Bahram" ...	" ...	" ...	" ...	504	.....	1
33	31st " ...	" "Koweit" ...	" ...	" ...	" ...	1,126	.....	1
34	" " ...	" "Alfeld" ...	" ...	" ...	" ...	906	.....	2
35	24th November 1913.	" "Islami" ...	" ...	Jeddah ...	Karáchi ...	736	.....	3
36	" " ...	" "Homayun" .	" ...	" ...	Bombay ...	727	.....	...
37	25th " ...	" "Bahram" ...	" ...	" ...	Busra ...	502	.....	...
38	26th " ...	" "Koweit" ...	" ...	" ...	Bombay ...	1,112	.....	2
39	" " ...	" "Budri" ...	" ...	" ...	" ...	635	.....	...
40	27th " ...	" "Mansuri"...	" ...	" ...	" ...	678	.....	5
41	29th " ...	" "Alfeld" ...	" ...	" ...	" ...	917	.....	2
42	" " ...	" "Mohamdi" .	" ...	" ...	Persian Gulf.	860	.....	...
43	1st December 1913 .	" "Tehran" ...	Persian ...	" ...	Busra ...	720	.....	...
44	" " ...	" "Lawoe" ...	British ...	" ...	Bombay ...	646	.....	1
45	4th " ...	" "Nurani" ...	" ...	" ...	" ...	922	.....	6
46	22nd " ...	" "Rahmani"...	" ...	" ...	" ...	697	.....	1
47	30th " ...	" "Ferozi" ...	" ...	" ...	" ...	789	.....	2
48	31st " ...	" "Koweit" ...	" ...	" ...	" ...	1,127	.....	1

V.—Prevailing Diseases.

Malarial fever. Diseases of Respiratory and digestive system. Ulcers, Local injuries, and small-pox.

Vaccination was offered to all arrivals as an alternative to quarantine, and residents of Aden, who had not been vaccinated, were persuaded to undergo the operation.

Plague in epidemic form prevailed in Aden in the months of April, May and June 1913. All sanitary precautions were taken to prevent the spread of disease, such as isolation of contacts, etc., and disinfection of houses. Inoculation with prophylactic serum was offered to all residents who came forward and were willing. Inspection of all passengers leaving Aden was carried out and quarantine imposed for periods according to Paris Convention Rules.

VI.—Statement showing the number of cases treated at the Small-pox Hospital, Maalla, during the year under report :—

Year.	Remaining as per last return.	Admissions.	Deaths.	Protected.	Unprotected.
1913 ...	*Nil.*	54	12	25	29

Source of admission.						Europeans.	Remarks.
Shipping.	Steamer Point.	Maalla.	Crater.	Sheikh.	Othman.		
4	16	9	23	2	...	1	Small-pox 27 Chicken-pox 9 Measles 4 Obsn. 14

VII.—Statement showing the tubes received, their cost and the vaccination operations during the year :—

Number of tubes received.	Cost.	Remarks.
Bombay.	Glycerinated vaccine.	
6,100	Rs. a. p. 1,525 0 0	

Total number of vaccination operations performed.	Results.			Remarks.
	Successful.	Failed.	Unknown.	
11,850	2,976	.....	8,874	

The result of a large number of operations are unknown owing to the shifting population, but it may be noted that many more persons are vaccinated than was the case formerly.

Cases of small-pox of local origin occurred during the months of October and November in sporadic form.

VIII.—Establishment.

Lieut.-Colonel S. E. Prall, I. M. S., Health Officer of the Port, Aden, from 1st January 1913 to 11th September 1913 and 10th November to 31st December 1913.

The intervening period Lieut. Colonel S. E. Prall, I. M. S., was on privilege leave, Major A. F. W. King, I. M. S., acted for him.

IX.—Office Establishment.

Mr. G. F. Andeen, Clerk, 1st January to 31st December 1913.

Syed Yahiya, Peon, from 1st January to 1st March 1913, was permitted to resign and Lakshman Krishna appointed in his place.

Abdulla Hussen, Night Peon, from 1st January 1913 to 14th July 1913, granted six months' leave without pay from 15th July 1913 (forenoon).

Ali Abdulla appointed acting Night Peon from 15th July 1913 (forenoon), and has been working since.

X.—Launch Establishment.

1. Driver Mahomed Ali, 1st January 1913 to 16th June 1913. Resigned from the 17th June 1913 (forenoon).

2. Succani Ahmed Suleman, 1st January 1913 to 31st December 1913.

3. Stoker Hussein Noman, 1st January to 16th June 1913, was appointed driver in place of Mahomed Ali, resigned from 17th June 1913 (forenoon) and has been working since.

Bashir Hizami appointed Stoker from 17th July 1913, (forenoon) vice Hussein Noman promoted Driver, and has been working since.

4. Lascar Mahomed Magon, 1st Januray 1913 to 31st December 1913.

XI.—Disinfecting Stove Establishment.

Shahaboodin Ismail, Engine Driver, 1st January 1913 to 31st December 1913.

Mahomed Salim, Foreman, 1st January 1913 to 31st December 1913.

Saleh Awad, Lascar, 1st January 1913 to 16th July 1913, granted leave from 17th July 1913 (forenoon).

Sheikh Idroos Sheikh Ahmed, appointed acting Lascar from 17th July 1913 (forenoon) and has been working since.

Ahmed Hussein Kokree, Lascar, 1st January to 31st December 1913.

S. E. PRALL,
Lieut.-Colonel, I. M. S.,
Health Officer of the Port, Aden.

Aden, 31st January 1914.

APPENDIX III.

The following table shows when the drainage systems and water-works were completed in the towns mentioned therein, with the average annual death-rate for the five-year period preceding the introduction and also the ratio for the five-year period ending with the year under report, exclusive of recorded plague mortality.

The rural death-rates for each district are added for comparison :—

District.	Táluka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1913 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in rural circles for the year 1913.	Plague mortality in rural circles for the year 1913.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay	*a* 1879	*b* 1892	32·54	27·98	.....	.....
West Khándesh	Dhulia	Dhulia	.....	1896	29·81	32·50	31·68	.....
Ahmednagar	Ahmednagar	Ahmednagar	.....	1897	21·81	55·65	26·12	0·14
Surat	Chorási	Surat	.....	1898	21·86	39·77	27·29	0·02
Ahmedabad	Daskroi	Ahmedabad	*c* 1893	1891	50·03	45·21	30·87	.....
Karáchi	Karáchi	Karáchi	*c* 1895	1894	31·39	35·15	7·40	.....
Sukkur	Sukkur	Sukkur	.....	1895	29·03	28·70	21·60	.....
Thána	Sálsette	Bándra	.....	1896	24·78	23·01	22·79	0·08
Kolába[9]	Panvel	Panvel	.....	1895	23·50	19·50	25·43	0·78
Dhárwár	Hubli	Hubli	.....	1894	29·59	25·70	30·76	6·79
Ahmedabad	Viramgám	Viramgám	*d* 1893	.....	36·99	69·28	32·93	.....
East Khándesh	Jalgaon	Jalgaon	.....	1909	29·68	31·56	32·21	0·02
Sholápur	Pandharpur	Pandharpur	.....	1911	40·52	49·98	24·83	0·15
Násik	Násik	Násik	.....	1913	43·25	52·73	27·62	.....
Bijápur	Bijápur	Bijápur	.....	1913	22·55	30·08	27·13	3·64

a Drainage works commenced in 1879 are still in progress.

b Tánsa water-works completed in 1892. Besides these there are Vehár and Tulshi Water-works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1913.*

1	2	3			4			5			6	7	8	9		
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	East Khándesh ..	521,546	512,668	1,034,214	26,275	25,107	51,382	25·41	24·27	49·68	104·65	18·68	..	25·94	26·45	52·39
2	West Khándesh ...	293,300	287,380	580,680	14,847	14,079	28,926	25·57	24·24	49·81	105·45	18 38	..	28·21	27·09	55·30
3	Násik	455,045	448,599	903,644	20,945	19,897	40,842	23·17	22·02	45·19	105·27	14·66	..	24·51	23·19	47·70
4	Thána	456,673	424,235	880,908	15,840	14,784	30,624	17·98	16·78	34·76	107·14	10·70	..	18·26	17·40	35·66
5	Kolába	295,085	298,972	594,057	11,909	11,209	23,118	20·06	18·86	38·92	106·24	13·83	..	19·29	18·20	37·49
6	City of Bombay ..	629,854	333,509	963,363	9,840	9,487	19,327	10·21	9·85	20·06	103·72	..	12·64	10·80	10·29	21·09
	Central Registration District.															
7	Ahmednagar	475,163	468,825	943,991	16,513	15,804	32,317	17·49	16·74	34·23	104·49	9·39	..	23·08	21·92	45·00
8	Poona	538,238	526,568	1,064,806	17,742	16,712	34,454	16·63	15·70	32·36	106·16	3·62	..	18·34	17·02	35·36
9	Sholápur	391,311	376,706	768,017	18,471	15,670	32,141	21·45	20·40	41·85	105·11	12 87	..	21·50	20·35	41·85
10	Sátára	538,841	541,957	1,080,798	21,184	19,802	40,986	19·60	18·32	37·92	106·98	9·84	..	18·06	16·06	34·12
11	Ratnágiri	553,368	650,234	1,203,602	19,835	18,865	38,709	16·48	15·67	32·15	105·14	11·20	..	17·13	16·07	33·20
	Southern Registration District.															
12	Belgaum	478,458	463,490	941,948	19,661	18,948	38,609	20·87	20·12	40·99	103·76	14·29	..	19·47	18·73	38·21
13	Dhárwár	519,995	505,091	1,025,086	20,669	19,763	40,432	20·16	19·28	39·44	104·58	8·70	..	18·28	17·68	35·96
14	Bijápur	433,866	429,061	862,927	17,270	16,606	33,876	20·01	19·24	39·26	104·00	10·71	..	21·48	20·71	42·17
15	Kánara	220,065	210,369	430,434	7,690	7,213	14,903	17·87	16·76	34·62	106·61	5·93	..	16·05	15·26	31·31
	Gujarát Registration District.															
16	Surat	326,839	327,135	653,974	12,401	11,677	24,078	18·96	17·85	36·81	106·20	10·19	..	19·16	18·24	37·40
17	Broach	158,219	148,448	306,667	7,171	6,548	13,719	23·38	21·35	44·73	109·51	7·76	..	24·04	22·65	46·69
18	Kaira	370,174	321,468	691,642	15,887	14,376	30,263	22·97	20·79	43·76	110·51	10·05	..	22·40	20·12	42·52
19	Panch Mahals ..	165,902	156,751	322,653	6,372	5,945	12,317	19·75	18·42	38·17	107·18	16·96	..	25·38	22·44	45·82
20	Ahmedabad	432,124	395,213	827,337	15,849	14,082	29,931	19·16	17·02	36·18	112·55	1·36	..	19·69	17·73	37·42
	Sind Registration District.															
21	Karáchi	290,390	225,943	516,333	6,144	5,271	11,415	11·90	10·21	22·11	116·56	3·84	..	13·58	11·74	25·32
22	Hyderabad	337,526	273,584	611,110	6,104	4,606	10,710	9·99	7·54	17·53	132·52	4·25	..	8·72	6·44	15·16
23	Thar and Párkar ..	241,274	192,091	433,365	5,148	3,999	9,147	11·88	9·23	21·11	128·73	4·09	..	11·64	8·95	20·59
24	Nawabshah	247,719	200,759	448,478	4,641	3,154	7,795	10·35	7·03	17·38	147·15	3·91	..	9·54	6·68	16·22
25	Lárkhána	359,207	301,621	660,828	8,495	6,699	15,194	12·85	10·14	22·99	126·81	·04	..	12·90	10·12	23·02
26	Sukkur	312,782	260,803	573,585	7,710	6,297	14,007	13·44	10·98	24·42	122·44	3·11	..	13·59	10·82	24·39
27	Upper Sind Frontier..	145,541	117,445	262,986	3,192	2,398	5,590	12·14	9·12	21·26	133·11	3·41	..	11·00	8·21	19·22
	Total for the Presidency ..	10,188,455	9,398,928	19,587,383	355,805	328,998	684,803	18·16	16·80	34·96	108·15	8·33	..	18·65	17·27	35·92

ANNUAL FORM No. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1913.*

1	2	3	4	5			6		7			8
Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS 1911).			BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	East Khándesh	4,550	227	521,546	512,668	1,034,214	51,382	49·63	16,683	15,376	32,059	108·50
2	West Khándesh	5,439	106	293,300	287,380	580,680	28,926	49·81	9,382	8,918	18,250	104·62
3	Násik	5,879	154	455,045	448,599	903,644	40,842	45·19	14,169	13,152	27,321	107·73
4	Thána	3,576	246	456,673	424,235	880,908	30,624	34·76	11,016	10,179	21,195	108·22
5	Kolába	2,169	274	295,085	298,972	594,057	23,118	38·92	7,683	7,214	14,902	106·57
6	City of Bombay	22·5	41,483	629,854	333,509	963,363	19,327	20·06	17,631	13,884	31,505	126·92
	Central Registration District.											
7	Ahmednagar...	6,613	142	475,163	468,828	943,991	32,317	34·23	12,145	11,309	23,454	107·35
8	Poona	5,366	198	538,238	526,568	1,064,806	34,454	32·36	15,999	14,603	30,602	109·56
9	Sholápur	4,556	169	391,311	376,706	768,017	32,141	41·85	11,437	10,817	22,254	105·73
10	Sátára	4,818	224	588,841	541,957	1,080,798	40,988	37·92	15,204	15,148	30,352	100·37
11	Ratnágiri	3,989	302	553,368	650,234	1,203,602	38,700	32·15	12,559	12,664	25,223	99·17
	Southern Registration District.											
12	Belgaum	4,613	204	478,458	463,490	941,948	38,609	40·93	12,654	12,505	25,159	101·19
13	Dhárwár	4,604	323	519,995	505,091	1,025,086	40,432	39·44	15,701	15,812	31,513	99·30
14	Bijápur	5,707	151	433,866	429,061	862,927	33,876	39·26	12,391	12,241	24,632	101·23
15	Kánara	3,946	109	220,065	210,369	430,434	14,903	34·62	6,439	5,913	12,352	108·90
	Gujarát Registration District.											
16	Surat	1,651	396	326,839	327,135	653,974	24,078	36·81	8,802	8,606	17,408	102·32
17	Broach	1,468	269	158,219	148,448	306,667	13,719	44·73	5,752	5,587	11,339	102·95
18	Kaira	1,596	433	370,174	321,468	691,642	30,263	43·76	12,031	11,286	23,317	106·60
19	Panch Mahális	1,603	201	165,902	156,751	322,653	12,317	38·17	3,425	3,418	6,843	100·20
20	Ahmedabad	3,824	216	432,124	395,213	827,337	29,931	36·18	14,774	14,038	28,812	105·24
	Sind Registration District.											
21	Karáchi	11,782	44	290,390	225,943	516,333	11,415	22·11	5,136	4,296	9,432	119·55
22	Hyderabad	4,417	138	337,526	273,584	611,110	10,710	17·53	4,549	3,571	8,111	127·14
23	Thar and Párkar	13,688	32	241,274	192,091	433,365	9,447	21·71	4,061	3,314	7,375	122·54
24	Nawabshah	3,867	116	247,719	200,759	448,478	7,795	17·38	3,307	2,735	6,042	120·91
25	Lárkhána	5,053	131	359,207	301,621	660,828	15,194	22·99	7,974	7,195	15,169	110·83
26	Sukkur	5,585	102	312,732	260,803	573,535	14,007	24·42	6,344	5,882	12,226	107·85
27	Upper Sind Frontier ...	2,644	99	145,541	117,445	262,986	5,590	21·26	2,451	2,241	4,692	109·37
	Total for the Presidency...	122,978	159	10,188,465	9,398,928	19,587,393	684,803	34·96	269,635	251,904	521,539	107·04

1	2	9										10		
Number.	Districts.	DEATHS PER 1,000 OF POPULATION FROM										MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	All causes.				
										Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.														
1	East Khándesh	·03	2·55	·32	11·33	1·34	3·55	·26	11·61	31·98	29·99	30·99	37·59	36·70	37·16
2	West Khándesh	·10	3·28	·01	14·39	·57	2·34	·33	10·41	31·81	31·03	31·43	35·80	34·47	35·14
3	Násik	·29	·42	·01	12·78	1·30	3·61	·34	11·48	31·14	29·32	30·23	36·73	35·29	36·12
4	Thána	·19	·31	·73	14·99	·62	·91	·57	5·74	24·12	23·99	24·06	28·38	28·34	28·37
5	Kolába	·19	·41	·69	13·69	1·27	·80	·43	7·60	26·05	24·12	25·08	29·24	27·27	28·31
6	City of Bombay	·13	·22	2·70	3·11	3·23	10·57	·66	12·05	27·98	41·63	32·70	32·83	45·71	37·46
	Central Registration District.														
7	Ahmednagar	·23	·57	·06	10·07	3·12	3·48	·23	7·09	25·54	21·12	24·35	31·50	29·02	30·27
8	Poona	·94	·91	2·23	12·33	3·12	3·04	·36	5·76	29·73	27·73	28·74	31·06	29·76	30·35
9	Sholápur	1·67	·29	·03	13·78	4·16	1·64	·32	6·28	29·23	28·71	28·97	33·74	33·44	33·43
10	Sátára	1·24	·26	3·48	11·18	3·77	1·06	·47	6·62	28·21	27·95	28·08	26·56	25·56	26·01
11	Ratnágiri	·01	·18	·13	12·46	2·53	2·32	·41	2·91	22·69	19·47	20·95	23·52	19·89	21·57
	Southern Registration District.														
12	Belgaum	·23	·43	3·06	5·08	3·10	2·85	·45	11·51	26·45	26·98	26·71	30·67	30·98	30·82
13	Dhárwár	·00	·17	5·90	7·10	1·17	3·63	·42	12·29	30·19	31·31	30·74	36·31	36·22	36·27
14	Bijápur	·22	·67	5·49	8·18	1·92	2·26	·25	9·55	28·56	28·53	28·54	34·24	34·03	34·12
15	Kánara	...	·05	·01	12·08	2·17	1·27	·56	12·55	29·26	28·11	28·69	32·09	31·45	31·78
	Gujarát Registration District.														
16	Surat	·03	·04	1·12	14·80	·50	6·04	·33	3·76	26·93	26·31	26·62	28·67	27·81	28·24
17	Broach	·17	·05	·01	23·51	·62	5·86	·47	6·28	36·35	37·64	36·97	35·75	36·04	35·89
18	Kaira	...	·01	·00	13·34	1·56	10·17	·51	8·12	32·50	35·11	33·71	32·31	33·57	32·90
19	Panch Mahális	...	·10	...	16·69	·18	1·12	·39	2·78	20·64	21·80	21·21	22·91	23·39	23·14
20	Ahmedabad	...	·00	·00	25·30	·65	4·92	·47	3·48	34·19	35·52	34·82	37·11	37·37	37·47
	Sind Registration District.														
21	Karáchi	...	·16	·86	9·24	·52	2·12	·35	5·01	17·69	19·06	18·27	22·06	22·32	22·18
22	Hyderabad	...	·32	...	10·74	·26	·82	·28	·84	13·45	13·05	13·27	17·00	16·44	16·73
23	Thar and Párkar	...	·27	...	16·13	·03	·13	·33	·15	16·83	17·25	17·02	18·16	18·08	18·13
24	Nawabshah	...	·20	·00	12·57	·07	·11	·29	·23	13·35	13·62	13·47	16·67	16·34	16·52
25	Lárkhána	·04	·05	...	21·74	·02	·04	·42	·64	22·20	23·35	22·95	20·34	20·50	20·42
26	Sukkur	·00	·17	·01	18·49	·14	·09	·30	2·11	20·29	22·55	21·32	20·52	21·12	20·79
27	Upper Sind Frontier ...	·00	·30	...	16·73	·04	·01	·24	·51	16·84	19·08	17·84	13·98	14·74	14·30
	Total for the Presidency...	0·26	·50	1·29	12·58	1·74	3·03	·39	6·83	26·46	26·80	26·63	29·70	29·54	29·61

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1913.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	East Khándesh	2,829	2,495	3,224	3,448	2,541	1,994	2,283	2,792	2,683	2,503	2,695	2,572	32,059	1
2	West Khándesh	1,715	1,470	1,941	1,690	1,296	1,030	1,242	1,541	1,261	1,407	1,861	1,590	18,250	2
3	Násik	1,996	1,676	1,814	2,065	1,759	1,776	2,342	2,930	2,781	2,463	3,041	2,678	27,321	3
4	Thána	2,215	1,662	2,113	1,822	1,621	1,334	1,381	1,560	1,603	1,628	2,222	2,034	21,195	4
5	Kolába	1,562	1,153	1,519	1,275	1,255	994	1,013	1,155	1,124	1,091	1,228	1,533	14,902	5
6	City of Bombay	2,651	2,417	3,057	3,512	3,422	2,250	2,302	2,439	2,283	2,399	2,352	2,421	31,505	6
	Central Registration District.														
7	Ahmednagar	1,833	1,540	1,769	1,748	1,755	1,636	2,196	2,653	2,397	2,107	2,008	1,813	23,454	7
8	Poona	2,313	1,827	2,139	2,567	2,693	2,209	2,469	2,868	3,049	3,032	2,805	2,531	30,602	8
9	Sholápur	1,668	1,299	1,413	2,055	2,448	1,924	2,384	2,374	1,933	1,741	1,611	1,449	22,254	9
10	Sátára	2,120	1,648	1,689	2,021	2,315	2,309	3,073	3,091	3,222	3,741	2,816	2,407	30,352	10
11	Ratnágiri	2,630	1,976	2,319	2,050	1,976	1,738	1,992	2,074	2,014	2,066	2,052	2,336	26,223	11
	Southern Registration District.														
12	Belgaum	1,883	1,541	1,879	1,799	1,925	2,082	2,262	2,223	2,263	2,539	2,511	2,252	25,159	12
13	Dhárwár	2,431	1,848	1,976	2,060	2,114	1,873	2,198	2,607	3,063	3,912	4,041	3,385	31,513	13
14	Bijápur	2,434	1,543	1,627	1,641	1,535	1,648	2,024	2,111	2,547	2,868	2,491	2,163	24,632	14
15	Kánara	1,366	1,032	946	863	828	915	1,020	1,142	988	1,009	1,105	1,138	12,352	15
	Gujarát Registration District.														
16	Surat	1,572	1,204	1,539	1,279	1,118	1,100	1,175	1,359	1,376	1,648	1,950	1,998	17,408	16
17	Broach	734	553	633	685	611	613	842	993	1,115	1,547	1,630	1,433	11,389	17
18	Kaira	1,480	1,217	1,446	1,447	1,482	1,481	1,804	2,220	2,551	3,168	2,968	2,053	23,317	18
19	Panch Mahals	586	400	617	452	397	377	467	517	654	835	956	685	6,343	19
20	Ahmedabad...	3,047	2,328	2,302	2,171	1,857	1,580	1,760	2,184	2,632	2,913	3,211	2,827	28,812	20
	Sind Registration District.														
21	Karáchi	768	730	724	696	725	648	553	611	742	836	1,128	1,242	9,432	21
22	Hyderabad	964	971	755	652	540	552	487	474	511	655	773	777	8,111	22
23	Thar and Párkar	1,020	968	749	660	455	466	334	266	388	488	779	804	7,375	23
24	Nawabshah	709	641	481	437	433	374	354	301	368	529	751	664	6,042	24
25	Lárkhána	1,581	1,384	1,064	1,058	979	874	842	783	1,056	1,740	1,998	1,810	15,169	25
26	Sukkur	953	808	883	893	917	965	769	718	904	1,434	1,671	1,311	12,226	26
27	Upper Sind Frontier ...	331	323	348	342	349	408	313	273	310	576	678	447	4,692	27
	Total for the Presidency...	45,391	36,742	40,870	41,538	39,246	35,156	39,830	44,359	45,818	50,904	53,332	48,353	521,539	
	Ratio of deaths per 1,000 in each month... ...	2·3	·8	2·09	2·12	2·00	1·80	2·03	2·26	2·34	2·60	2·72	2·47	26·63	

FORM No. IV.

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	East Khándesh	5,620	4,881	4,691	4,689	970	849	337	379
2	West Khándesh	3,248	2,733	2,515	2,667	615	646	220	237
3	Násik	4,414	3,688	3,717	3,668	778	711	392	405
4	Thána	2,373	2,105	1,871	1,926	626	655	355	317
5	Kolába	2,060	1,628	1,198	1,263	401	396	241	186
6	City of Bombay	3,897	3,535	1,781	1,866	513	555	561	539
	Central Registration District.								
7	Ahmednagar	3,601	3,037	3,256	3,301	509	534	197	208
8	Poona	4,159	3,404	3,700	3,507	880	865	533	523
9	Sholápur	3,265	2,624	3,136	3,052	445	507	290	256
10	Sátára	3,605	3,152	3,439	3,339	984	1,054	621	659
11	Ratnágiri	1,821	1,511	1,692	1,727	581	636	368	384
	Southern Registration District.								
12	Belgaum	2,979	2,417	2,511	2,745	862	925	535	578
13	Dhárwár	3,739	2,987	2,755	2,807	1,029	1,171	706	907
14	Bijápur	2,581	2,221	2,366	2,404	876	1,015	542	590
15	Kánara	1,786	1,412	624	659	226	213	124	143
	Gujarát Registration District.								
16	Surat	2,138	2,003	1,622	1,614	484	484	257	253
17	Broach	1,710	1,535	1,532	1,522	284	266	111	88
18	Kaira	3,229	3,285	3,481	3,227	487	406	211	173
19	Panch Mahals	840	812	811	920	265	285	86	70
20	Ahmedabad	3,904	3,616	2,943	3,016	651	646	250	234
	Sind Registration District.								
21	Karáchi	1,439	1,284	717	722	254	280	166	140
22	Hyderabad	968	794	520	483	221	211	167	137
23	Thar and Párkar	756	669	512	496	235	200	136	106
24	Nawabshah	572	543	447	456	214	151	130	92
25	Lárkhána	1,773	1,740	1,329	1,240	573	490	296	195
26	Sukkur	1,900	1,775	1,172	1,166	347	319	206	169
27	Upper Sind Frontier ...	661	600	583	547	195	197	74	65
	Total for the Presidency ...	69,038	59,991	54,876	55,029	14,505	14,667	8,117	8,033
	Population according to Census of 1911	333,992	333,705	1,033,360	1,066,128	1,286,872	1,204,044	1,129,222	893,170
	Ratios per 1,000 living ...	206·71	179·77	53·10	51·61	11·27	12·18	7·19	8·99

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1913.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	No.
216	337	576	828	768	705	772	489	839	500	1,894	1,719	1
133	196	372	580	519	445	461	317	442	281	807	816	2
315	382	671	822	820	793	783	571	811	617	1,468	1,495	3
297	337	891	1,215	1,168	936	1,090	660	927	669	1,418	1,359	4
216	236	556	713	640	592	641	457	750	627	985	1,116	5
1,281	1,038	3,286	2,138	2,188	1,154	1,445	818	1,314	829	1,355	1,412	6
206	300	585	674	657	557	767	486	988	855	1,379	1,357	7
488	597	1,230	1,291	1,132	895	962	689	938	710	1,977	2,122	8
248	376	615	704	563	581	609	549	710	589	1,556	1,579	9
467	605	1,068	1,218	1,133	1,111	1,001	876	986	932	1,900	2,202	10
537	593	982	1,018	1,018	972	982	801	1,225	982	3,353	4,040	11
473	471	879	1,116	895	875	936	747	954	759	1,630	1,872	12
537	666	1,296	1,756	1,203	1,220	1,323	995	1,221	1,079	1,892	2,224	13
419	515	1,051	1,192	790	958	947	803	1,067	772	1,752	1,771	14
160	241	513	679	665	569	733	441	643	508	965	1,048	15
219	239	567	780	640	731	734	537	674	506	1,467	1,459	16
73	83	283	420	329	352	384	311	410	294	636	716	17
198	157	711	779	741	716	833	624	823	629	1,317	1,290	18
63	75	228	257	246	241	281	176	274	186	331	396	19
401	439	1,379	1,397	1,307	1,120	1,353	990	1,260	1,066	1,321	1,514	20
203	193	559	517	511	369	434	220	319	156	534	415	21
188	202	518	549	524	393	514	271	389	196	531	385	22
176	154	506	441	448	357	448	280	372	225	472	386	23
147	112	353	405	378	285	363	210	304	186	399	295	24
314	327	703	839	732	705	713	463	602	371	939	825	25
166	205	383	553	491	435	457	310	450	247	772	703	26
57	69	171	203	158	175	175	115	149	69	273	201	27
8,198	9,145	20,932	23,084	20,664	18,242	20,141	14,206	19,841	14,840	33,323	34,667	
852,854	752,848	1,903,139	1,801,211	1,562,195	1,370,275	1,064,455	949,249	611,654	564,582	436,814	476,708	
9·61	12·15	11·00	12·82	13·23	13·31	18·92	14·92	32·44	26·28	76·29	72·72	

ANNUAL FORM No. V.—DEATHS *registered according to* CLASSES

1	2	3						
		POPULATION ACCORDING TO CENSUS OF 1911.						
No.	Districts.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	East Khándesh	99,521	902,131	9,361	748	371	22,082	1,034,214
2	West Khándesh	31,323	474,200	3,796	586	233	70,542	580,680
3	Násik	47,705	843,705	7,902	1,867	840	1,625	903,644
4	Thána	41,979	786,925	2,985	43,341	5,105	573	880,908
5	Kolába	28,876	560,266	1,411	1,149	303	2,052	594,057
6	City of Bombay	179,346	664,042	20,460	41,273	50,931	7,311	963,363
	Central Registration District.							
7	Ahmednagar	47,959	855,676	15,284	23,622	222	1,228	943,991
8	Poona	48,936	991,738	11,731	8,280	2,695	1,476	1,064,806
9	Sholápur	55,877	703,215	7,643	1,412	334	36	768,017
10	Sátára	36,688	1,028,176	14,883	815	209	27	1,080,798
11	Ratnágiri	85,303	1,110,594	1,913	5,678	46	68	1,203,602
	Southern Registration District.							
12	Belgaum	77,075	817,797	41,533	5,313	159	71	941,948
13	Dhárwár	136,943	872,885	10,413	4,526	218	101	1,025,086
14	Bijápur	101,069	757,542	3,235	1,052	28	1	862,927
15	Kánara	28,731	383,624	1,251	16,729	14	85	430,434
	Gujarát Registration District.							
16	Surat	55,394	571,884	9,821	1,050	11,783	4,092	653,974
17	Broach	67,752	192,964	3,053	1,052	2,770	39,076	306,667
18	Kaira	63,280	598,165	6,609	23,490	81	17	691,642
19	Panch Mahals	22,273	274,339	1,542	1,810	204	22,485	322,653
20	Ahmedabad	92,018	693,209	35,899	3,584	1,639	988	827,337
	Sind Registration District.							
21	Karáchi	396,334	111,748	650	3,625	2,202	1,774	516,333
22	Hyderabad	1,035,437	442,801	695	248	102	13,670	611,110
23	Thar and Párkar ...							433,365
24	Nawabshah							448,478
25	Lárkhána	557,517	101,687	1	21	6	1,596	660,828
26	Sukkur	414,671	155,156	3	207	96	3,402	573,535
27	Upper Sind Frontier	235,970	26,495	...	10	5	506	262,986
	Total for the Presidency ...	3,987,477	14,920,914	212,074	191,438	80,596	194,884	19,587,383

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

in the BOMBAY PRESIDENCY *during the year 1913.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
2,667	29,363	13	11	1	4	32,059	26·80	32·50	1·39	14·71	2·69	·18	30·99
771	17,477	...	2	...	...	18,250	24·31	36·85	...	3·41	...	...	31·43
1,150	26,121	28	15	5	2	27,321	24·11	30·96	3·54	8·03	5·95	1·23	30·23
1,106	19,133	13	871	57	15	21,195	26·35	24·31	4·36	20·10	11·17	26·18	24·06
728	14,107	10	24	2	31	14,902	25·24	25·18	7·08	20·86	6·61	15·11	25·08
6,989	20,490	1,349	1,332	1,145	200	31,505	38·97	30·86	65·93	32·27	22·48	27·35	32·70
1,125	22,196	23	66	4	40	23,454	23·46	25·94	1·54	2·79	18·02	32·57	24·85
1,512	28,798	53	125	45	69	30,602	30·90	29·04	4·52	15·19	26·70	46·07	28·74
1,297	20,830	107	7	4	9	22,254	23·42	29·62	14·00	4·96	11·98	250·	28·97
1,042	28,960	342	6	...	2	30,352	28·40	28·17	22·97	7·36	...	74·07	28·08
1,796	23,346	6	74	...	1	25,223	21·05	21·02	3·14	13·03	...	14·71	20·95
2,206	21,863	939	151	...	...	25,159	28·62	26·73	22·85	28·42	...	...	26·71
4,127	26,984	335	65	2	...	31,513	30·14	30·91	32·17	14·36	9·17	...	30·74
2,750	21,818	64	...	...	...	24,632	27·21	28·80	19·78	...	...	...	28·54
766	11,163	22	401	...	...	12,352	26·66	29·10	17·59	23·97	...	...	28·69
980	14,569	137	14	213	1,495	17,408	17·69	25·48	13·95	13·33	18·08	365·35	26·62
2,280	7,667	46	14	65	1,267	11,339	33·65	39·73	15·07	13·31	23·47	32·42	36·97
1,760	21,255	106	194	1	1	23,317	27·81	35·53	16·04	8·26	12·35	58·82	33·71
409	4,800	18	4	1	1,611	6,843	18·36	17·86	11·67	22·10	4·90	71·65	21·21
2,827	24,977	897	43	16	52	28,812	30·72	36·03	24·99	12·00	9·76	52·63	34·82
5,390	3,881	...	91	41	22	9,432	13·60	34·73	...	25·10	21·80	12·80	18·27
5,012	3,093	1	2	...	3	8,111							13·27
4,297	1,743	...	1	...	1	6,042	12·50	19·32	25·90	12·10	...	·29	17·02
3,638	3,720	17	...	...	...	7,375							13·47
12,507	2,661	...	1	...	...	15,169	22·43	26·17	...	47·62	...	...	22·95
7,451	4,750	...	1	3	21	12,226	17·97	30·61	...	4·83	31·25	6·17	21·32
3,978	710	...	...	...	4	4,692	16·86	26·80	...	...	...	7·91	17·84
80,561	426,475	4,526	3,515	1,612	4,850	521,539	20·20	28·58	21·34	18·36	20·00	24·89	26·63

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	East Khándesh ...	903,053	37	2,490	70	10,665	1,217	3,058	1	2	177
2	West Khándesh ...	538,084	56	1,811	3	8,032	272	1,207	7	7	119
3	Násik	815,511	241	360	4	10,750	988	2,902	7	5	206
4	Thána	791,861	166	227	276	12,509	376	657	22	14	278
5	Kolába	567,043	112	242	311	7,947	734	439	5	3	180
	Central Registration District.										
6	Ahmednagar ...	888,096	207	461	38	8,865	2,818	3,081	2	5	184
7	Poona	859,267	911	366	533	10,722	1,931	2,438	5	7	248
8	Sholápur	660,338	1,066	98	15	8,343	2,789	903	6	1	119
9	Sátára	1,027,647	1,250	220	2,537	11,670	3,889	1,073	12	10	327
10	Ratnágiri	1,136,710	14	185	108	14,303	2,882	2,583	5	4	234
	Southern Registration District.										
11	Belgaum	869,243	195	391	2,348	4,583	2,771	2,406	19	8	322
12	Dhárwár	885,871	3	174	4,836	6,779	964	2,881	22	19	293
13	Bijápur	792,582	197	548	3,209	6,820	1,581	1,688	13	17	121
14	Kánara	382,278	...	22	6	4,854	807	456	8	4	182
	Gujarát Registration District.										
15	Surat	512,580	19	14	655	8,813	194	3,004	4	14	135
16	Broach	242,979	1	14	1	6,561	136	1,128	6	7	71
17	Kaira	594,309	...	4	...	8,089	889	6,039	18	23	199
18	Panch Maháls ...	291,248	...	32	...	4,954	38	308	3	5	85
19	Ahmedabad ...	568,530	...	2	...	16,368	193	1,013	9	20	166
	Sind Registration District.										
20	Karáchi	351,401	...	32	3	3,127	20	20	2	1	64
21	Hyderabad... ...	523,747	...	26	...	5,445	33	34	2	2	72
22	Thar and Párkar ...	424,563	...	114	...	6,661	7	4	2	2	70
23	Nawabshah ...	436,579	...	90	1	5,525	14	26	4	5	72
24	Lárkhána	628,336	23	34	...	13,447	6	16	5	4	169
25	Sukkur	468,207	...	57	...	7,904	38	17	3	3	103
26	Upper Sind Frontier.	251,646	...	63	...	4,177	6	3	5	3	46
	Total of Districts ...	16,409,709	4,498	8,077	14,954	217,913	25,593	37,384	197	195	4,242
	B.—TOWNS.										
	East Khándesh District.										
1	Jalgaon	17,195	...	12	2	51	57	105	...	1	6
2	Bhusawal	18,312	...	...	166	186	32	98	...	...	9
3	Chopda	17,008	...	3	...	92	2	55	...	...	6
4	Dharangaon ...	15,607	...	...	...	95	7	62	...	...	7
5	Parola	14,177	...	34	...	164	7	53	...	...	5
6	Amalner	13,232	...	53	...	115	24	67	...	...	1
7	Erandol	13,144	...	24	...	117	10	63	...	1	2

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1913.*

RIES.			11	12	13										14
					RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes.		No.
													For the year.	Mean of previous five years.	
23	17	220	10,717	28,474	·04	2·76	·08	11·81	1·35	3·38	·24	11·87	31·53	37·47	1
37	3	173	5,509	17,063	·10	3·37	·01	14·9	·51	2·24	·32	10·24	31·71	35·48	2
51	2	271	9,526	25,042	·30	·44	·01	13·21	1·21	3·57	·33	11·71	30·78	35·65	3
152	...	466	4,022	18,699	·21	·29	·35	15·80	·47	·83	·59	5·08	23·61	28·17	4
65	1	254	4,281	14,320	·20	·42	·55	14·02	1·29	·77	·45	7·55	25·25	28·52	5
23	1	215	6,604	22,289	·23	·52	·04	9·98	3·17	3·47	·24	7·44	25·09	30·76	6
44	16	320	4,904	22,125	1·06	·42	·62	12·48	2·25	2·84	·37	5·71	25·75	29·06	7
23	9	158	3,415	16,787	1·61	·15	·02	12·64	4·22	1·37	·24	5·17	25·42	30·43	8
115	12	476	6,852	27,967	1·22	·21	2·47	11·35	3·78	1·05	·46	6·67	27·21	25·98	9
233	...	476	3,308	23,859	·01	·16	·10	12·58	2·54	2·27	·42	2·91	20·99	21·59	10
36	7	392	10,189	23,275	·22	·45	2·70	5·27	3·19	2·77	·45	11·72	26·78	30·59	11
38	1	373	10,862	26,872	·00	·20	5·46	7·65	1·09	3·25	·42	12·26	30·33	35·87	12
31	3	185	7,367	21,595	·25	·69	4·05	8·60	1·99	2·13	·23	9·29	27·25	36·22	13
29	1	224	4,849	11,218	...	·06	·02	12·70	2·11	1·19	·59	12·68	29·35	32·34	14
34	2	189	1,690	14,578	·04	·03	1·28	17·19	·38	5·86	·37	3·29	28·44	29·48	15
20	2	103	1,422	9,369	·00	·06	·00	27·00	·56	4·64	·44	5·85	38·56	36·85	16
37	15	292	4,605	19,918	...	·01	...	13·61	1·49	10·16	·49	7·75	33·51	32·22	17
17	...	110	703	6,145	...	·11	...	17·01	·13	1·06	·38	2·41	21·10	23·19	18
50	7	252	909	18,737	...	·00	...	28·79	·34	1·78	·44	1·60	32·95	32·04	19
29	...	96	134	3,432	...	·09	·01	8·90	·06	·06	·27	·38	9·77	13·45	20
52	...	128	103	5,769	...	·05	...	10·40	·06	·06	·24	·20	11·01	15·30	21
64	...	138	64	6,988	...	·27	...	15·69	·02	·01	·33	·15	16·46	17·92	22
50	...	131	103	5,890	...	·21	·00	12·66	·03	·06	·30	·24	13·49	16·53	23
87	...	265	202	13,993	·04	·05	...	21·40	·01	·03	·42	·32	22·27	20·09	24
31	...	140	106	8,262	...	·12	...	16·88	·08	·04	·30	·23	17·65	18·16	25
7	...	61	18	4,328	...	·25	...	16·60	·02	·01	·24	·07	17·20	13·85	26
1,378	99	6,111	102,464	416,994	0·27	·49	·91	13·28	1·56	2·28	·37	6·24	25·41	28·14	
...	...	7	219	453	...	·69	·11	2·97	3·32	6·11	·41	12·73	26·34	33·94	1
1	...	10	218	710	...	...	9·06	10·16	1·75	5·35	·55	11·90	38·77	...	2
...	1	7	96	255	...	·17	...	5·42	·11	3·23	·41	5·65	14·99	19·75	3
...	...	7	149	320	...	...	...	6·09	·45	3·97	·45	9·54	20·50	...	4
...	...	5	87	350	...	2·39	...	11·56	·49	3·73	·35	6·14	24·68	...	5
...	...	1	128	388	...	4·00	...	8·70	1·81	5·06	·07	9·67	29·32	...	6
1	...	4	127	345	...	1·82	...	8·90	·76	4·79	·30	9·67	26·24	...	7

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	East Khándesh—District—continued.										
8	Nasirabad	13,033	...	10	93	92	30	72	...	...	2
9	Chalisgaon	9,453	1	15	...	139	3	39	1	2	6
	West Khándesh. District.										
10	Dhulia	30,757	...	55	1	218	35	131	2	...	10
11	Nandurbar... ...	11,839	...	36	1	107	24	21	...	...	6
	Násik District.										
12	Násik	33,163	14	6	...	178	103	157	2	2	11
13	Yeola	16,275	...	6	...	183	34	112	1	1	4
14	Málegaon	19,542	...	1	...	240	15	31	...	...	4
15	Igatpuri	8,380	...	4	1	57	3	29	...	...	1
16	Manmad	6,947	9	1	...	94	22	12	...	...	1
17	Trimbak	4,078	...	...	...	45	7	19	...	1	6
18	Deolali Cantonment.	1,748	...	...	...	1	2	3	...	...	...
	Thána District.										
19	Thána	15,591	...	9	38	98	30	37	1	...	6
20	Bándra	22,885	...	10	155	67	55	42	...	1	6
21	Kurla	15,081	...	3	9	160	47	30	...	...	1
22	Bhiwandi	13,292	1	11	58	167	15	13	2	1	2
23	Kalyán	12,600	...	3	99	112	11	19	...	...	7
24	Bassein	9,598	3	6	11	89	10	8	...	...	3
	Kolába District.										
25	Alibág	3,358	3	...	34	20	5	8	...	...	...
26	Panvel	7,744	...	...	63	50	8	13	...	...	2
27	Mahád	7,164	...	...	...	68	5	7	...	...	1
28	Uran	8,748	...	3	1	45	5	7	1	1	2
29	City of Bombay ...	963,363	123	210	2,605	2,994	3,141	10,179	57	26	541
	Ahmednagar District.										
30	Ahmednagar ...	33,878	1	43	19	476	94	143	...	...	1
31	Sangamner... ...	14,269	12	30	...	143	31	31	...	...	...
32	Ahmednagar Cantonment.	7,748	...	...	1	20	4	25	...	...	...
	Poona District.										
33	Poona	126,201	13	557	1,778	1,620	1,266	545	...	2	29
34	Barámati	10,190	70	3	27	157	15	8	...	...	5
35	Khed	8,056	...	...	1	63	15	18	...	...	6

VI—*continued.*

RIES.			11	12	13										14
					Ratio of Deaths per 1,000 of Population.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	1	3	198	498	...	·76	7·13	7·06	2·31	5·52	·23	15·20	38·21	43·30	8
2	...	11	58	266	·11	1·59	...	14·70	·31	4·12	1·16	6·13	28·13	...	9
1	...	13	420	873	...	1·79	·03	7·09	1·13	4·26	·42	13·66	28·38	30·76	10
2	...	8	117	314	...	3·04	·09	9·04	2·02	77	·68	9·88	26·52	31·29	11
2	...	17	484	959	·42	·18	...	5·37	3·10	4·73	·51	14·59	28·90	52·73	12
1	...	7	111	453	...	·36	...	11·24	2·09	6·88	·43	6·82	27·83	29·39	13
...	...	4	128	419	...	·05	...	12·28	·77	1·59	·20	6·55	21·44	56·39	14
...	...	1	37	132	...	·48	·12	6·80	·36	3·46	·12	4·41	15·75	...	15
1	...	2	19	159	1·29	·14	...	13·53	3·17	1·73	·29	2·73	22·88	...	16
1	...	8	39	118	...	...	...	11·03	1·72	4·66	1·96	9·56	28·93	...	17
...	...	...	33	39	...	...	...	·57	1·14	1·72	...	18·88	22·31	24·78	18
...	...	7	231	450	...	·58	2·44	6·28	1·92	2·37	·45	14·82	28·86	35·18	19
1	3	11	342	682	...	·44	6·77	2·93	2·40	1·84	·48	14·94	29·80	29·48	20
...	...	1	64	314	...	·20	·60	10·61	3·12	1·99	·07	4·23	20·82	...	21
...	...	5	168	438	·07	·83	4·36	12·56	1·13	·98	·38	12·64	32·95	...	22
2	...	9	115	368	...	·24	7·86	8·89	·87	1·51	·71	9·13	29·21	31·55	23
1	...	4	113	244	·31	·63	1·15	9·27	1·04	·83	·42	11·77	25·42	...	24
...	...	...	29	99	·89	...	10·12	5·96	1·49	2·38	...	8·63	29·48	34·07	25
...	...	2	110	246	...	...	8·14	6·46	1·03	1·67	·25	14·21	31·76	30·00	26
...	...	1	42	123	...	...	...	9·50	·70	·96	·14	5·86	17·17	21·20	27
...	...	4	49	114	...	·35	·11	5·15	·56	·80	·46	5·60	13·03	...	28
5	13	642	11,611	31,505	·13	·22	2·70	3·11	3·26	10·57	·66	12·05	32·70	37·46	29
...	...	1	32	809	·03	1·27	·56	14·05	2·77	4·22	·03	·94	23·88	25·87	30
...	...	...	45	292	·84	2·10	...	10·02	2·17	2·17	...	3·15	20·45	19·26	31
...	...	...	14	64	..	...	·13	2·58	·52	3·23	...	1·81	8·27	11·32	32
1	1	33	676	6,488	·10	4·41	14·09	12·84	10·03	4·32	·26	5·36	51·41	40·14	33
...	...	5	52	337	6·87	·29	2·65	15·41	1·47	·79	·49	5·10	33·07	...	34
...	...	6	41	144	...	...	·12	7·82	1·86	2·23	·75	5·09	17.87	...	35

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
											Inju
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Woundin or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Poona District—continued.										
36	Lonavla	12,295	2	27	...	164	24	41	1	...	12
37	Junnar	8,820	...	...	1	54	5	11	...	...	...
38	Poona Cantonment	30,958	1	19	83	282	25	108	...	...	2
39	Kirkee do. ...	9,019	1	...	4	63	43	66	...	...	2
	Sholápur District.										
40	Sholápur	61,082	130	110	8	1,522	648	229	1	5	47
41	Bársi	18,097	33	7	1	312	61	43	2	...	15
42	Pandharpur ...	28,550	51	10	2	405	314	86	...	1	13
	Sátára District.										
43	Sátára	18,665	...	40	559	196	61	35	...	2	15
44	Wái	5,333	...	...	383	56	19	3	...	...	3
45	Karád	11,228	...	4	2	95	41	11	...	...	2
46	Ashta	9,351	86	11	3	50	34	1	...	...	1
47	Islampur	8,574	1	1	274	18	33	25	1	...	6
	Ratnágiri District.										
48	Ratnágiri	15,822	...	36	1	138	46	33	...	...	1
49	Vengurla	17,294	...	...	49	156	44	70	...	...	7
50	Malvan	22,080	...	...	...	241	40	61	...	...	2
51	Chiplun	11,696	...	...	...	161	36	40	...	...	3
	Belgaum District.										
52	Belgaum	31,451	9	12	168	93	28	115	...	...	6
53	Gokák	7,326	3	1	285	21	15	34	...	...	1
54	Athni	13,849	...	...	1	45	68	56	...	...	9
55	Nipani	10,779	12	...	49	22	21	49	...	...	5
56	Belgaum Cantonment.	9,360	...	...	28	19	21	30	...	1	2
	Dhárwár District.										
57	Dhárwár	29,370	...	...	13	98	47	169	1	...	6
58	Hubli	61,440	...	...	741	217	63	457	2	...	18
59	Gadag-Bettigeri ...	30,429	...	2	443	141	100	165	2	7	12
60	Ránebennur ...	10,931	...	1	...	25	19	68	1	...	4
61	Navalgund ...	7,045	...	...	14	20	10	33	1	...	4
	Bijápur District.										
62	Bijápur	27,569	...	9	642	53	16	127	1	3	13
63	Bágalkot	17,294	...	23	708	69	35	72	1	...	4
64	Guledgund ...	15,249	...	...	152	40	24	24	1	1	...
65	Ilkal	10,233	...	...	29	73	2	38	...	1	...

VI—*continued.*

			11	12	13										14
BIES.					Ratio of Deaths per 1,000 of Population.								From all Causes.		No.
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	
1	...	14	107	379	·16	2·20	...	13·34	1·95	3·33	1·14	8·70	30·82	...	36
1	...	1	39	111	...	...	·11	6·12	·57	1·25	·11	4·42	12·58	23·42	37
...	...	2	239	759	·03	·61	2·68	9·11	·81	3·49	·06	7·72	24·51	28·05	38
1	...	3	79	259	·11	...	·44	6·99	4·77	7·32	·33	8·76	28·72	31·24	39
5	...	58	944	3,649	2·13	1·80	·13	24·94	10·62	3·75	·95	15·47	59·79	52·01	40
...	...	17	213	687	1·82	·39	·05	17·24	3·37	2·38	·94	11·77	37·96	47·22	41
...	...	14	249	1,131	1·79	·35	·07	14·18	11·00	3·01	·49	8·72	39·61	46·35	42
...	...	17	136	1,044	...	2·14	29·95	10·50	3·27	1·87	·91	7·29	55·93	31·69	43
...	...	3	32	496	...	...	71·82	10·50	3·56	·56	·56	6·00	93·00	32·65	44
...	...	2	20	175	...	·36	·18	8·46	3·65	·98	·18	1·78	15·59	18·69	45
1	...	2	62	249	9·19	1·17	·32	5·35	3·64	·11	·21	6·63	26·63	...	46
...	...	7	62	421	·12	·12	31·96	2·10	3·85	2·91	·81	7·23	49·10	...	47
...	...	1	36	291	...	2·28	·06	8·72	2·91	2·09	·06	2·28	18·39	15·74	48
2	...	9	87	415	...	...	2·83	9·02	2·54	4·05	·52	5·03	23·99	25·67	49
1	...	3	61	406	...	...	...	10·91	1·81	2·76	·14	2·76	18·39	...	50
...	...	3	12	252	...	...	...	13·76	3·08	3·42	·26	1·03	21·55	...	51
...	...	6	253	684	·29	·39	5·34	2·96	·89	3·66	·19	8·04	21·75	33·57	52
...	...	1	85	445	·41	·14	38·90	2·87	2·05	4·64	·14	11·60	60·74	60·00	53
...	...	9	162	341	...	...	·07	3·25	4·91	4·05	·65	11·70	24·62	34·08	54
...	4	9	69	231	1·11	...	4·55	2·04	1·95	4·55	·84	6·40	21·43	...	55
1	1	5	80	183	...	...	3·01	2·04	2·26	3·23	·54	8·60	19·68	20·03	56
...	...	7	311	645	...	...	·44	3·34	1·60	5·75	·24	10·59	21·96	42·27	57
1	...	21	790	2,289	...	...	12·06	3·53	1·03	7·44	·34	12·86	37·26	38·33	58
...	...	21	378	1,250	...	·07	14·56	4·63	3·29	5·42	·69	12·42	41·08	37·10	59
...	...	5	189	307	...	·09	...	2·29	1·74	6·22	·45	17·29	28·09	44·22	60
...	...	5	68	150	...	...	1·99	2·84	1·42	4·68	·71	9·66	21·29	...	61
1	...	18	258	1,123	...	·33	23·29	1·92	·58	4·61	·65	9·36	40·73	30·08	62
...	1	6	301	1,214	...	1·33	40·94	3·99	2·02	4·16	·35	17·40	70·20	49·47	63
...	...	2	138	380	...	...	9·97	2·62	1·57	1·57	·13	9·05	24·92	...	64
...	...	1	177	320	...	...	2·83	7·13	·20	3·71	·10	17·30	31·27	...	65

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*concluded.*										
	Kánara District.										
66	Kárwár	18,045	...	1	...	143	21	28	...	...	6
67	Kumta	10,343	...	...	...	62	36	18	...	...	2
68	Gokarn ...	5,304	...	...	...	33	14	12	1	...	1
69	Honáwar ...	7,323	...	...	...	63	31	5	...	...	3
70	Bhatkal	7,141	...	...	...	45	24	28	...	...	2
	Surat District.										
71	Surat	114,733	...	11	7	701	99	756	...	...	16
72	Bulsár	15,972	3	...	44	75	20	113	...	1	5
73	Rander	10,689	...	...	26	90	15	77	...	1	2
	Broach District.										
74	Broach	43,353	50	...	2	324	36	491	1	...	26
75	Jambusar	8,991	...	...	...	132	11	109	...	1	1
76	Ankleshwár ...	11,344	...	...	...	194	6	69	...	...	4
	Kaira District.										
77	Kaira	7,297	...	...	...	82	22	136	...	...	6
78	Mehmadabad ...	6,330	...	...	...	132	7	39	...	...	2
79	Nadiád	27,145	...	...	...	384	43	271	...	4	10
80	Borsad	11,860	...	...	...	92	39	182	...	1	9
81	Anand	10,139	...	...	...	113	20	43	3	...	1
82	Umreth	13,651	...	...	1	57	15	146	...	...	11
83	Dakore	7,785	...	...	...	149	19	51	2	...	3
84	Kapadvanj	13,126	...	...	2	129	26	129	...	...	6
	Panch Maháls District.										
85	Godhra	22,102	...	...	...	134	2	38	1	...	10
86	Dohad	9,303	...	...	...	298	1	15	...	...	3
	Ahmedábad District.										
87	Ahmedabad ...	214,000	1	1	2	3,622	305	2,823	11	13	90
88	Dhandhuka ...	8,040	...	...	...	124	16	79	...	...	3
89	Viramgám	20,769	...	...	...	412	12	88	1	...	8
90	Dholka	13,693	...	...	...	386	16	63	...	...	6
91	Ahmedabad Cantonment.	2,305	...	...	...	17	...	2	...	...	...
	Karáchi District.										
92	Karáchi	140,511	...	49	435	1,403	215	1,046	2	...	73
93	Tatta	11,161	...	...	...	133	6	2	...	...	1
94	Kotri	7,256	...	3	...	86	19	23	...	...	7
95	Karáchi Cantonment.	6,004	...	...	6	24	10	1	...	...	...

VI—continued.

			11	12	13										14
RIES.					RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes.		No.
													For the year.	Mean of previous five years.	
...	...	6	138	337	...	·06	...	7·92	1·16	1·55	·33	7·65	18·68	19·60	66
...	...	2	149	267	...	...	...	5·99	3·48	1·74	·19	14·40	25·81	29·17	67
...	...	2	121	182	...	...	...	6·22	2·64	2·26	·38	22·81	34·31	...	68
...	...	3	86	188	...	...	...	8·60	4·23	·68	·41	11·74	25·67	...	69
1	...	3	60	160	...	...	...	6·30	3·36	3·92	·42	8·40	22·41	...	70
...	...	16	547	2,137	...	·09	·06	6·11	·86	6·59	·14	4·77	18·62	22·74	71
...	...	6	113	374	·19	...	2·75	4·70	1·25	7·07	·38	7·07	23·41	29·40	72
...	...	3	108	319	...	...	2·43	8·42	1·40	7·20	·28	10·11	29·84	...	73
2	1	30	434	1,367	1·15	...	·05	7·47	·83	11·33	·69	10·01	31·53	32·10	74
3	...	5	23	280	...	...	...	14·68	1·22	12·12	·56	2·56	31·14	29·11	75
1	...	5	49	323	...	...	...	17·10	·53	6·08	·44	4·32	28·47	...	76
...	...	6	60	306	...	...	...	11·24	3·02	18·64	·82	8·22	41·94	32·61	77
...	...	2	53	233	...	...	...	20·85	1·11	6·16	·32	8·37	36·81	...	78
...	...	14	306	1,018	...	...	...	14·15	1·58	9·98	·52	11·27	37·50	46·08	79
...	...	10	136	459	...	...	...	7·76	3·29	15·34	·84	11·47	38·70	36·08	80
...	...	4	79	259	...	...	...	11·15	1·97	4·24	·39	7·79	25·54	...	81
1	...	12	207	438	...	...	·07	4·18	1·10	10·70	·88	15·16	32·09	...	82
...	...	5	77	301	...	...	...	19·14	2·44	6·55	·64	9·89	38·66	...	83
...	...	6	93	385	...	...	·15	9·83	1·98	9·83	·46	7·08	29·33	34·53	84
1	...	12	115	301	...	...	...	6·06	·09	1·72	·54	5·20	13·61	17·03	85
...	2	5	78	397	...	...	...	32·03	·11	1·61	·54	8·38	42·67	36·68	86
...	1	115	1,608	8,477	·00	·00	·01	16·93	1·43	13·19	·54	7·51	39·61	53·53	87
...	...	3	48	270	...	...	...	15·42	1·99	9·83	·37	5·97	33·58	...	88
3	...	12	183	707	...	...	...	19·84	·58	4·23	·58	8·81	34·04	38·38	89
1	...	7	129	601	...	...	...	28·19	1·17	4·60	·51	9·42	43·89	42·60	90
...	...	...	1	20	...	...	...	7·38	...	·87	...	1·43	8·68	11·04	91
...	...	75	2,297	5,520	...	·35	3·10	9·98	1·53	7·44	·53	16·34	39·28	47·45	92
...	...	1	74	216	...	...	...	11·92	·54	·18	·09	6·63	19·35	...	93
...	...	7	15	153	...	·41	...	11·85	2·62	3·17	·96	2·07	21·09	...	94
...	...	...	70	111	...	...	1·00	4·00	1·67	·17	...	11·66	18·50	...	95

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding of Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Hyderabad District.										
96	Hyderabad ...	69,140	...	172	...	978	126	447	...	1	39
97	Halla	5,853	...	...	...	78	...	...	...	...	...
98	Matiari	6,487	...	...	...	23	1	22	...	...	3
99	Hyderabad Cantonment.	5,883	...	...	...	37	...	...	...	...	...
	Thar and Párkar District.										
100	Umarkot	3,946	...	...	...	147	4	7	...	...	...
101	Mirpurkhas ...	4,856	...	1	...	176	1	44	...	...	5
	Nawabshah District.										
102	Nawabshah ...	1,886	...	...	...	24	...	...	...	...	2
103	Tando Adam ...	10,013	...	...	...	86	16	22	...	...	...
	Lárkhána District.										
104	Lárkhána	16,046	...	...	...	401	8	2	1	...	6
105	Kambar	6,286	...	...	...	222	...	...	...	...	5
106	Ratodero	5,411	...	...	...	204	...	...	1	...	1
107	Sehwan	4,749	1	1	...	94	1	8	...	...	...
	Sukkur District.										
108	Sukkur	34,916	...	21	2	798	6	11	...	...	14
109	Shikárpur	53,944	1	14	1	1,313	11	...	2	...	11
110	Rohri	9,919	...	4	...	365	26	26	...	...	3
111	Garhi Yasin ...	6,549	...	...	...	227	1	...	...	...	...
	Upper Sind Frontier District.										
112	Jacobabad	8,324	1	12	...	168	3	...	...	...	3
113	Jacobabad Cantonment.	3,016	...	5	...	54	1	...	...	...	...
	Total of Towns ...	3,177,674	636	1,756	10,334	28,406	8,428	22,034	108	82	1,323
	Total for the Presidency ...	19,587,383	5,134	9,833	25,288	246,319	34,021	59,418	305	277	5,565

N. B.—Districts A in this statement do not include the population or deaths of

VI—*concluded.*

			11	12	13										14
BIES.					Ratio of Deaths per 1,000 of Population.								From all Causes.		
Snake-bite, or killed by wild beast.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
1	...	41	346	2,110	...	2·49	...	14·14	1·82	6·46	·60	5·01	30·52	36·83	96
...	...	...	14	92	...	...	...	13·32	...	...	...	2·39	15·71	...	97
2	...	5	27	78	...	...	...	3·53	·15	3·38	·77	4·15	11·98	...	98
...	...	...	25	62	...	...	...	6·29	...	...	...	4·25	10·54	...	99
...	...	...	1	159	...	...	...	37·25	1·01	1·77	...	·25	40·29	37·78	100
1	...	6	...	228	...	·21	...	36·24	·21	9·06	1·24	...	46·95	...	101
1	...	3	...	27	...	...	...	12·74	...	...	1·58	...	14·32	...	102
...	...	...	1	125	...	...	...	8·59	1·59	2·19	...	·10	12·47	...	103
...	...	7	188	606	...	...	...	24·99	·50	·12	·44	11·72	37·77	34·37	104
...	...	5	6	233	...	...	...	35·82	...	...	·80	·95	37·07	...	105
...	...	2	1	207	...	...	...	37·70	...	...	·37	·18	38·25	...	106
...	...	...	25	130	·21	·21	...	19·79	·21	1·68	...	5·26	27·37	...	107
1	...	15	171	1,024	...	·60	·06	22·85	·17	·32	·43	4·90	29·33	28·73	108
...	...	13	892	2,245	·02	·26	·02	24·34	·20	...	·24	16·54	41·61	29·44	109
1	...	4	41	466	...	·40	...	36·80	2·62	2·62	·40	4·13	46·98	...	110
1	...	1	...	229	...	...	...	34·66	·15	...	·15	...	31·97	...	111
...	...	3	116	303	·12	1·44	...	20·18	·36	...	·36	13·94	36·40	23·83	112
...	...	...	1	61	...	1·66	...	17·90	·33	...	...	·33	20·23	...	113
58	29	1,600	31,351	104,545	·20	0·55	3·25	8·94	2·65	6·93	·50	9·87	32·90	37·28	
1,436	128	7,711	133,815	521,539	·26	·50	1·29	12·58	1·74	3·03	·39	6·83	26·63	29·61	

owns B. In all the other statements "Districts" include Towns.

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1913.*

No.	2 Districts.	3 Circles of Registration. Number in each District.	3 Circles of Registration. Number from which deaths from cholera were reported.	4 Villages. Number in each District.	4 Villages. Number from which deaths from cholera were reported.	5 January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	6 Total. Male.	Female.	Total.	7 Ratio of Deaths per 1,000 of Population. Male.	Female.	Total.	8 Mean ratio per 1,000 of previous five years.	9 No.
	Western Registration District.																								
1	East Khándesh ...	22	4	1,438	4	...	...	...	...	...	...	1	29	7	...	...	1	21	17	38	·04	·03	·03	1·68	1
2	West Khándesh ...	10	3	1,096	10	...	...	...	...	...	...	2	47	1	6	...	...	26	30	56	·03	·10	·10	1·39	2
3	Násik	19	8	1,649	28	...	...	...	1	...	...	...	122	100	35	6	...	112	152	264	·24	·34	·29	1·76	3
4	Thána	17	9	1,643	25	124	18	...	...	6	...	2	4	16	...	...	...	86	84	170	·19	·20	·19	·57	4
5	Kolába	14	4	1,461	20	62	3	...	...	...	...	...	3	36	5	6	...	51	64	115	·18	·21	·19	1·01	5
6	City of Bombay ...	1	1	1	1	49	15	5	4	6	2	7	9	9	7	4	6	80	43	123	·13	·13	·13	·59	6
	Central Registration District.																								
7	Ahmednagar	14	12	1,348	28	...	1	...	3	68	11	7	58	58	13	...	1	102	118	220	·22	·25	·23	1·39	7
8	Poona	18	13	1,201	98	...	1	...	115	501	70	70	147	86	8	...	...	531	467	998	·99	·89	·94	1·91	8
9	Sholápur	10	10	718	95	...	...	...	125	580	199	164	153	28	20	11	...	678	602	1,280	1·73	1·60	1·67	1·51	9
10	Sátára	19	13	1,346	116	4	1	...	132	323	243	420	180	20	11	3	...	680	657	1,337	1·26	1·21	1·24	1·62	10
11	Ratnágiri	15	2	1,311	3	2	6	6	...	...	...	...	...	...	...	...	...	6	8	14	·01	·01	·01	·14	11
	Southern Registration District.																								
12	Belgaum	15	8	1,070	31	1	1	...	1	34	28	77	45	12	16	4	...	117	102	219	·24	·22	·23	2·02	12
13	Dhárwár	18	3	1,295	3	...	1	1	1	...	...	...	...	...	...	...	...	3	...	3	·01	...	·00	1·68	13
14	Bijápur...	13	5	1,122	29	...	...	...	...	12	48	54	52	24	7	...	...	106	91	197	·24	·21	·23	1·18	14
15	Kánara...	16	...	1,265	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·62	15
	Gujarát Registration District.																								
16	Surat	12	3	760	6	1	...	...	...	...	...	...	2	7	11	...	1	11	11	22	·03	·03	·03	·29	16
17	Broach...	9	2	409	2	...	...	...	...	...	...	...	...	...	...	...	51	25	26	51	·16	·18	·17	.08	17
18	Kaira	15	...	586	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·44	18
19	Panch Mahals ...	7	..	660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	19
20	Ahmedabad	13	1	880	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	·00	·00	·24	20
	Sind Registration District.																								
21	Karáchi	16	...	665	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·10	21
22	Hyderabad	11	...	864	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·89	22
23	Thar and Párkar ...	13	...	901	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·23	23
24	Nawabshah	9	...	721	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·76	24
25	Lárkhána	15	1	737	2	...	...	...	...	...	...	...	...	9	15	...	...	15	9	24	·04	·03	·04	·63	25
26	Sukkur...	12	1	684	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	...	·00	·49	26
27	Upper Sind Frontier.	7	1	422	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	·00	·00	·41	27
	Total for the Presidency.	360	104	26,253	503	244	47	12	383	1,531	601	804	851	413	154	34	60	2,651	2,483	5,134	·26	·26	·26	1·09	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1913.*

No.	2 Districts.	3 Circles of Registration. Number in each District.	3 Circles of Registration. Number from which deaths from Small-pox were reported.	4 Villages. Number in each District.	4 Villages. Number from which deaths from Small-pox were reported.	5 January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	6 Total. Male.	Female.	Total.	7 Number of these Deaths among Children. Under 1 year.	Under 10 years.	8 Ratio of Deaths per 1,000 of Population. Male.	Female.	Total.	9 Mean ratio per 1,000 of previous five years.	10 No.
	Western Registration District.																										
1	East Khándesh ...	22	20	1,438	595	193	383	678	681	316	123	105	22	23	19	31	66	1,314	1,327	2,641	823	1,656	2·52	2·53	2·55	·33	1
2	West Khándesh ...	10	10	1,096	423	138	266	611	513	199	76	28	13	13	2	12	1	950	952	1,902	649	1,199	3·24	3·31	3·28	·30	2
3	Násik	19	16	1,649	185	20	23	37	71	37	34	27	14	7	10	43	55	158	190	378	138	195	·41	·42	·42	·30	3
4	Thána	17	17	1,643	87	18	13	22	40	30	14	23	24	12	18	26	29	138	131	269	63	166	·30	·31	·31	·24	4
5	Kolába	14	11	1,461	91	14	24	25	38	23	15	7	14	18	10	27	30	123	122	245	88	124	·42	·40	·41	·42	5
6	City of Bombay ...	1	1	1	1	3	16	41	64	26	9	17	11	4	1	2	6	122	88	210	55	68	·19	·26	·22	·81	6
	Central Registration District.																										
7	Ahmednagar	14	13	1,348	177	49	137	182	86	43	20	10	7	6	14	14	16	271	263	534	183	263	·57	·56	·57	·11	7
8	Poona	18	15	1,201	145	69	165	207	287	142	53	33	13	11	12	17	10	509	463	972	294	483	·95	·88	·91	·21	8
9	Sholápur	10	10	718	43	13	20	27	30	25	29	18	13	3	6	20	21	115	110	225	53	113	·29	·29	·29	·21	9
10	Sátára	19	17	1,346	74	47	64	46	37	33	9	12	5	3	7	3	10	128	148	276	97	115	·24	·27	·26	·08	10
11	Ratnágiri	15	11	1,311	66	14	14	18	26	25	24	19	19	19	17	10	17	115	106	221	69	118	·20	·16	·18	·28	11
	Southern Registration District.																										
12	Belgaum	15	12	1,070	153	44	45	45	64	41	51	38	30	16	10	4	16	198	206	404	97	234	·41	·44	·43	·08	12
13	Dhárwar...	18	15	1,295	73	14	13	25	28	17	11	11	4	9	2	9	34	96	81	177	52	120	·18	·16	·17	·11	13
14	Bijápur	13	11	1,122	187	77	85	1 8	101	65	46	35	21	0	10	8	14	262	318	580	159	444	·60	·74	·67	·09	14
15	Kánara	16	6	1,265	10	9	1	2	...	2	5	3	...	1	...	...	...	17	6	23	5	9	·08	·03	·05	·32	15
	Gujarát Registration District.																										
16	Surat	12	6	760	9	...	2	6	9	3	3	...	1	1	...	...	...	12	13	25	8	12	·04	·04	·04	·23	16
17	Broach	9	5	409	7	4	...	2	6	1	1	...	...	...	...	...	...	11	3	14	4	9	·07	·02	·05	·05	17
18	Kaira	15	3	586	3	...	1	...	3	...	...	...	...	...	...	...	...	2	2	4	3	1	·01	·01	·01	·09	18
19	Panch Mahals ...	7	5	660	20	12	4	3	5	5	3	...	...	...	...	...	...	17	15	32	3	21	·10	·10	·10	·08	19
20	Ahmedabad	13	2	880	3	1	1	...	...	...	...	...	...	1	...	...	...	2	1	3	2	...	·00	·00	·00	·42	20
	Sind Registration District.																										
21	Karáchi	16	7	665	14	4	8	13	22	15	8	12	1	...	...	...	1	50	34	84	15	33	·17	·15	·16	·56	21
22	Hyderabad	11	7	864	6	47	48	41	26	14	4	4	2	...	1	6	5	98	100	198	13	41	·29	·37	·32	·28	22
23	Thar and Párkar ...	13	6	901	45	19	64	25	1	...	...	2	1	...	...	...	3	60	55	115	9	46	·25	·29	·27	·23	23
24	Nawabshah	9	7	721	33	22	24	5	8	26	9	1	...	...	...	...	...	48	42	90	14	34	·19	·21	·20	·24	24
25	Lárkhána...	15	8	737	13	1	2	7	6	9	2	...	2	1	3	...	2	22	13	35	1	4	·06	·04	·05	·09	25
26	Sukkur	12	9	684	32	36	8	10	22	4	10	5	1	...	...	...	...	63	33	96	14	18	·20	·13	·17	·08	26
27	Upper Sind Frontier ...	7	5	422	17	6	20	13	11	13	8	5	2	1	...	...	1	41	39	80	11	15	·28	·33	·30	·10	27
	Total for the Presidency.	360	255	26,253	2,470	874	1,451	2,149	2160	1124	567	418	220	159	142	232	337	4,972	4,861	9,833	2,922	5,514	·40	·52	·5	·24	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVER *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1913.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio of previous five years.	No.
		Number in each District.	Number from which deaths from fever were reported.	Number in each District.	Number from which deaths from fever were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	22	22	1,438	1,273	942	789	1,000	1,175	939	749	879	1,105	1,062	1,042	1,090	944	5,917	5,799	11,716	11·34	11·31	11·33	13·01	1
2	West Khándesh ...	10	10	1,096	1,065	731	567	634	679	554	465	596	755	600	746	1,001	819	4,061	4,296	8,357	13·82	14·94	14·39	16·93	2
3	Násik	19	19	1,649	1,464	839	700	794	846	692	726	886	1,121	1,008	990	1,543	1,343	5,929	5,619	11,548	13·03	12·53	12·78	13·30	3
4	Thána	17	17	1,643	1,531	1,399	1,093	1,363	1,140	966	847	749	856	926	1,020	1,535	1,344	6,789	6,413	13,202	14·87	15·12	14·99	17·56	4
5	Kolába	14	14	1,461	1,320	882	606	899	711	693	447	516	690	555	592	680	891	4,096	4,034	8,130	13·88	13·50	13·69	15·87	5
6	City of Bombay — *Central Registration District.*	1	1	1	1	238	222	268	260	288	236	192	249	258	288	264	231	1,864	1,130	2,994	2·96	3·59	3·11	3·22	6
7	Ahmednagar ...	14	14	1,348	1,212	786	610	734	799	708	655	885	1,002	914	892	856	753	4,937	4,567	9,504	10·39	9·74	10·07	10·64	7
8	Poona	18	18	1,201	1,035	1,070	826	978	1,190	1,047	1,051	1,090	1,311	1,160	1,083	1,169	1,150	6,811	6,314	13,125	12·66	11·99	12·33	12·82	8
9	Sholápur	10	10	718	694	825	679	726	1,044	959	829	1,102	1,119	940	835	792	732	5,349	5,233	10,582	13·69	13·89	13·78	15·48	9
10	Sátára	19	19	1,346	1,221	1,069	777	826	931	937	962	1,233	1,214	1,063	1,111	1,007	955	6,164	5,921	12,085	11·44	10·92	11·18	9·97	10
11	Ratnágiri	15	15	1,311	1,237	1,689	1,420	1,263	1,217	1,083	981	1,132	1,166	1,148	1,231	1,213	1,488	7,259	7,740	14,999	13·12	11·90	12·46	13·02	11
	Southern Registration District.																								
12	Belgaum	15	15	1,070	914	330	290	377	403	444	435	429	388	362	400	498	427	2,432	2,351	4,783	5·08	5·07	5·08	5·02	12
13	Dhárwár	18	18	1,295	1,102	608	507	557	644	323	549	542	561	585	608	779	717	3,647	3,633	7,280	7·01	7·19	7·10	7·74	13
14	Bijápur	13	13	1,122	1,040	653	419	560	603	561	565	652	589	597	647	608	596	3,581	3,474	7,055	8·25	8·09	8·18	10·28	14
15	Kánara	16	16	1,265	1,029	592	461	397	390	315	406	414	447	397	404	492	485	2,604	2,593	5,200	11·83	12·34	12·08	14·03	15
	Gujarát Registration District.																								
16	Surat	12	12	760	722	870	714	821	645	575	589	644	754	745	949	1,224	1,149	4,870	4,809	9,679	14·90	14·70	14·80	15·25	16
17	Broach	9	9	409	396	445	334	367	392	383	341	507	618	711	1,101	1,132	830	3,592	3,619	7,211	22·70	24·38	23·51	22·33	17
18	Kaira	15	15	586	556	564	479	581	512	520	497	632	854	1,080	1,417	1,325	766	4,650	4,577	9,227	12·56	14·24	13·34	11·83	18
19	Panch Mahális ...	7	7	660	623	452	307	412	350	305	281	348	401	517	711	772	530	2,667	2,719	5,386	16·08	17·35	16·69	18·33	19
20	Ahmedabad ...	13	13	880	822	2,300	1,782	1,691	1,526	1,225	1,020	1,155	1,501	1,963	2,227	2,413	2,126	10,618	10,311	20,929	21·57	26·09	25·30	24·95	20
	Sind Registration District.																								
21	Karáchi	16	16	665	665	442	445	323	287	314	284	226	225	312	475	698	741	2,593	2,180	4,773	8·93	9·65	9·24	8·81	21
22	Hyderabad ...	11	11	864	864	800	807	625	511	415	422	369	360	393	548	649	662	3,700	2,861	6,561	10·96	10·46	10·74	14·31	22
23	Thar and Párkar...	13	13	901	901	987	879	706	638	437	451	313	245	338	434	742	764	3,820	3,164	6,984	15·83	16·47	16·12	16·93	23
24	Nawabshah ...	9	9	721	721	670	602	464	417	391	324	319	257	331	504	719	637	3,090	2,545	5,635	12·47	12·68	12·57	11·35	24
25	Lárkhána	15	15	737	737	1,521	1,334	1,012	1,012	924	817	775	693	958	1,663	1,914	1,740	7,525	6,843	14,368	20·95	22·69	21·74	18·59	25
26	Sukkur	12	12	684	684	813	683	789	770	803	831	675	595	758	1,258	1,494	1,142	5,583	5,074	10,657	17·69	19·43	18·49	17·65	26
27	Upper Sind Frontier	7	7	422	422	306	288	316	318	325	378	293	247	292	557	663	426	2,283	2,111	4,399	15·72	17·98	16·73	13·20	27
	Total for the Presidency ...	360	360	26,253	24,251	22,828	18,620	19,533	19,410	17,432	16,158	17,541	19,231	20,115	23,643	27,332	24,446	126,336	119,983	246,319	12·40	12·76	12·58	13·11	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1913.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio of previous five years.	No.
		Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	o		
	Western Registration District.																								
1	East Khándesh ...	22	22	1,438	387	110	66	83	94	87	74	157	218	164	99	93	124	705	684	1,389	1·35	1·33	1·34	3·31	1
2	West Khándesh ...	10	10	1,096	129	31	16	25	24	14	18	48	66	36	20	16	19	176	155	331	·60	·53	·57	1·88	2
3	Násik	19	19	1,649	413	82	46	54	71	64	51	119	246	175	119	74	73	615	559	1,174	1·35	1·23	1·30	1·70	3
4	Thána	17	17	1,643	223	57	34	49	40	41	22	60	63	43	43	50	46	317	227	544	·69	·58	·62	·99	4
5	Kolába...	14	14	1,461	354	69	49	57	67	54	54	60	121	60	53	40	64	418	339	757	1·42	1·13	1·27	1·53	5
6	City of Bombay ... *Central Registration District.*	1	1	1	1	279	274	297	247	272	202	237	300	300	242	213	278	1,749	1,393	3,144	2·78	4·17	3·26	3·43	6
7	Ahmednagar	14	14	1,348	736	188	157	179	192	196	219	343	476	365	252	220	157	1,548	1,399	2,947	3·26	2·93	3·12	4·68	7
8	Poona	18	18	1,201	574	273	157	234	230	293	270	409	475	371	235	166	202	1,328	1,496	3,324	3·40	2·84	3·12	4·54	8
9	Sholápur	10	10	718	579	315	232	220	289	302	291	449	493	406	319	272	324	2,033	1,779	3,812	5·20	4·72	4·96	6·18	9
10	Sátára	19	19	1,346	771	309	225	230	296	331	420	474	488	411	351	288	324	2,133	1,944	4,077	3·96	3·59	3·77	3·79	10
11	Ratnágiri	15	15	1,311	912	325	187	253	335	304	104	118	302	282	301	266	266	1,597	1,451	3,048	2·89	2·23	2·53	2·39	11
	Southern Registration District.																								
12	Belgaum	15	15	1,070	625	216	98	274	241	251	271	349	327	281	245	211	161	1,474	1,450	2,924	3·08	3·13	3·10	3·29	12
13	Dhárwár	18	18	1,295	384	83	56	89	81	115	104	130	132	102	102	103	101	642	561	1,203	1·24	1·11	1·17	1·24	13
14	Bijápur	13	13	1,122	505	102	70	93	91	101	153	239	220	185	181	131	92	808	850	1,658	1·86	1·98	1·92	3·09	14
15	Kánara	16	16	1,265	278	83	66	55	35	65	65	79	121	111	98	77	73	493	437	933	2·25	2·08	2·17	2·53	15
	Gujarát Registration District.																								
16	Surat	12	13	760	121	33	18	13	11	24	24	28	37	34	36	30	35	181	147	328	·55	·45	·50	·60	16
17	Broach...	9	9	409	72	5	8	3	7	7	20	22	38	22	20	23	14	109	80	189	·69	·54	·62	·76	17
18	Kaira	15	15	586	256	40	29	30	49	48	63	127	159	144	173	157	61	625	455	1,080	1·69	1·42	1·56	1·56	18
19	Panch Mahális ...	7	7	660	19	1	1	2	4	4	2	6	8	1	1	9	2	24	17	41	·14	·11	·13	·46	19
20	Ahmedabad ...	13	12	880	79	70	43	44	37	41	40	52	65	43	36	34	37	306	236	542	·71	·60	·65	·77	20
	Sind Registration District.																								
21	Karáchi	16	13	665	15	14	13	22	13	17	29	15	31	39	29	23	21	158	112	270	·54	·50	·52	·35	21
22	Hyderabad	11	8	864	22	13	13	13	19	16	10	11	13	20	15	7	10	102	58	160	·30	·21	·26	·39	22
23	Thar and Párkar ...	13	7	901	8	...	2	2	2	2	1	1	...	...	...	1	1	11	1	12	·05	·01	·03	·05	23
24	Nawabshah	9	7	721	14	5	3	4	2	2	4	1	6	1	2	...	...	19	11	30	·08	·05	·07	·09	24
25	Lárkhána	15	7	737	7	...	1	...	2	1	2	2	2	...	...	3	2	13	2	15	·04	·01	·02	·05	25
26	Sukkur...	12	11	684	22	6	9	4	3	9	3	5	8	11	10	7	7	42	40	82	·13	·15	·14	·13	26
27	Upper Sind Frontier	7	5	422	5	1	1	...	1	...	2	1	...	1	1	1	1	5	5	10	03	·04	·04	·13	27
	Total for the Presidency ...	360	334	26,253	7,510	2,720	1,834	2,339	2,497	2,690	2,518	3,551	4,415	3,607	2,980	2,515	2,293	18,134	15,837	34,021	1·78	1·69	1·74	2·23	

ANNUAL FORM NO. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1913.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	22	22	1,438	905	502	329	371	322	244	143	196	267	239	333	385	341	2,039	1,633	3,672	3·91	3·19	3·55	3·95	1
2	West Khándesh...	10	10	1,093	458	218	123	133	109	73	66	75	78	79	101	147	157	759	600	1,359	2·59	2·09	2·34	2·53	2
3	Násik ...	19	19	1,649	872	344	246	242	269	176	167	234	268	312	320	373	314	1,606	1,659	3,265	3·83	3·70	3·61	3·67	3
4	Thána ...	17	17	1,643	323	78	53	116	95	43	39	48	93	57	45	67	69	438	368	806	·96	·86	·91	·96	4
5	Kolába ...	14	14	1,461	275	47	44	59	33	31	30	26	25	33	33	72	41	259	215	474	·87	·73	·80	·76	5
6	City of Bombay...	1	1	1	1	941	856	991	939	1,040	732	796	763	683	754	809	845	5,632	4,547	10,179	8·94	13·63	10·57	11·26	6
	Central Registration District.																								
7	Ahmednagar ...	14	14	1,348	780	312	210	217	178	177	171	237	353	360	350	371	344	1,564	1,716	3,280	3·29	3·66	3·48	3·80	7
8	Poona ...	18	18	1,201	649	302	240	203	265	211	246	252	339	311	309	289	268	1,625	1,610	3,235	3·02	3·06	3·04	3·50	8
9	Sholápur ...	10	10	718	335	164	118	92	115	70	87	103	93	96	114	110	99	587	674	1,261	1·50	1·79	1·64	1·79	9
10	Sátára ...	19	19	1,346	389	117	71	74	94	77	74	84	106	111	120	106	114	523	620	1,143	·98	1·14	1·06	·94	10
11	Ratnágiri ...	15	15	1,311	926	247	85	431	174	169	326	378	197	202	173	204	201	1,425	1,362	2,787	2·58	2·09	2·32	1·75	11
	Southern Registration District.																								
12	Belgaum ...	15	15	1,070	667	283	196	316	257	185	178	177	183	203	252	235	225	1,422	1,268	2,690	2·97	2·73	2·85	2·44	12
13	Dhárwár ...	18	18	1,295	789	373	320	291	296	276	265	251	311	339	319	402	330	1,753	2,020	3,773	3·37	4·00	3·68	2·51	13
14	Bijápur ...	13	13	1,122	601	260	143	202	159	128	126	120	146	142	168	197	158	1,045	904	1,949	2·41	2·11	2·26	2·57	14
15	Kánara ...	16	16	1,265	252	74	47	42	27	42	14	39	25	36	60	61	80	332	215	547	1·51	1·02	1·27	·96	15
	Gujarát Registration District.																								
16	Surat ...	12	12	760	568	390	325	346	336	263	288	305	274	283	330	366	414	2,088	1,862	3,950	6·39	5·69	6·04	6·28	16
17	Broach ...	9	9	409	242	142	101	127	108	111	127	144	154	144	192	216	231	1,043	754	1,797	6·59	5·08	5·86	6·01	17
18	Kaira ...	15	15	586	520	506	420	493	531	509	495	521	632	681	833	759	656	3,891	3,145	7,036	10·51	9·78	10·17	9·35	18
19	Panch Mahás ...	7	7	660	109	43	29	21	31	17	16	26	17	31	30	51	49	250	111	361	1·51	·71	1·12	·21	19
20	Ahmedabad ...	13	13	880	225	317	332	366	387	324	296	296	344	360	351	416	339	2,238	1,830	4,068	5·18	4·63	4·92	5·34	20
	Sind Registration District.																								
21	Karáchi ...	16	10	665	14	95	83	112	116	76	67	80	84	90	85	77	127	605	487	1,092	2·08	2·15	2·12	1·26	21
22	Hyderabad ...	11	8	864	26	49	43	45	57	36	48	41	32	44	24	45	39	253	250	503	·75	·91	·82	·60	22
23	Thar and Párkar.	13	5	901	5	7	12	6	5	1	1	3	1	...	3	3	13	37	18	55	·15	·09	·13	·11	23
24	Nawabshah ...	9	5	721	22	1	5	2	4	3	11	1	...	6	6	4	5	23	25	48	·09	·12	·11	·12	24
25	Lárkhána ...	15	9	737	10	3	2	8	...	2	1	3	3	1	1	...	2	19	7	26	·05	·02	·04	·03	25
26	Sukkur ...	12	7	684	14	5	8	1	5	2	4	1	3	3	8	8	6	29	25	54	·09	·10	·09	·17	26
27	Upper Sind Frontier ...	7	3	422	3	2	...	...	...	...	1	...	...	...	...	...	...	3	...	3	·02	...	·01	...	27
	Total for the Presidency ...	360	324	26,253	9,269	5,822	4,441	5,307	4,942	4,289	4,019	4,437	4,791	4,786	5,314	5,803	5,467	31,493	27,925	59,418	3·09	2·97	3·03	3·07	

ANNUAL FORM NO. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1913.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh...	22	7	1,438	12	10	15	12	5	...	...	...	8	56	64	49	112	166	165	331	·02	·32	·32	2·11	1
2	West Khándesh...	10	5	1,096	5	...	...	3	...	...	...	...	...	3	...	...	...	5	...	5	·00	...	·01	·21	2
3	Násik ...	19	4	1,649	4	...	...	...	...	...	...	1	2	2	...	...	...	3	2	5	·01	·00	·01	1·85	3
4	Thána ...	17	14	1,643	40	42	59	88	85	55	29	50	80	93	33	22	10	349	297	646	·76	·70	·73	·94	4
5	Kolába ...	14	11	1,461	47	41	94	39	49	35	4	10	14	9	20	52	42	222	187	409	·75	·63	·69	·89	5
6	City of Bombay...	1	1	1	1	41	122	456	878	727	139	79	60	41	33	21	8	1,773	832	2,605	2·81	2·50	2·70	4·14	6
	Central Registration District.																								
7	Ahmednagar ...	14	9	1,348	11	...	15	3	2	1	...	...	...	5	16	10	6	29	29	58	·06	·06	·06	·53	7
8	Poona ...	18	17	1,201	62	75	57	53	14	1	3	7	63	396	777	623	358	1,233	1,194	2,427	2·29	2·27	2·28	1·93	8
9	Sholápur ...	10	6	718	8	...	...	...	...	...	...	...	1	5	6	14	...	12	14	26	·03	·04	·03	2·28	9
10	Sátára ...	19	17	1,346	136	106	108	60	34	2	16	62	204	747	1,291	703	425	1,742	2,016	3,758	3·23	3·72	3·48	3·13	10
11	Ratnágiri ...	15	6	1,311	10	20	24	21	49	14	...	...	13	17	...	...	...	71	87	158	·13	·13	·13	·79	11
	Southern Registration District.																								
12	Belgaum ...	15	15	1,070	132	185	190	150	72	45	102	172	202	381	522	466	392	1,355	1,524	2,879	2·83	3·29	3·06	5·52	12
13	Dhárwár ...	18	17	1,295	195	252	209	94	36	10	62	137	422	863	1,486	1,445	1,031	2,780	3,267	6,047	5·35	6·47	5·90	9·32	13
14	Bijápur ...	13	13	1,122	187	529	245	51	10	...	6	84	314	897	1,151	806	647	2,249	2,491	4,740	5·18	5·81	5·49	5·34	14
15	Kánara ...	16	3	1,265	4	1	1	...	...	...	...	...	...	...	1	2	1	5	1	6	·02	·00	·01	·26	15
	Gujarát Registration District.																								
16	Surat ...	12	10	760	56	47	62	100	74	30	61	60	89	100	42	30	43	349	383	732	1·07	1·17	1·12	1·19	16
17	Broach ...	9	2	409	2	1	...	...	...	1	...	1	...	...	...	...	...	1	2	3	·01	·01	·01	·09	17
18	Kaira ...	15	2	586	2	...	...	...	1	2	...	...	...	...	...	...	...	2	1	3	·01	·00	·00	1·11	18
19	Panch Mahás ...	7	...	660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·31	19
20	Ahmedabad ...	13	1	880	1	...	...	...	1	1	...	...	...	...	...	...	...	1	1	2	·00	·00	·00	·65	20
	Sind Registration District.																								
21	Karáchi ...	16	3	665	3	...	...	21	83	95	41	9	15	30	33	62	55	271	173	444	·03	·77	·36	4·56	21
22	Hyderabad ...	11	...	864	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·02	22
23	Thar and Párkar.	13	...	901	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
24	Nawabshah ...	9	1	721	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	·00	...	·00	...	24
25	Lárkhána ...	15	...	737	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25
26	Sukkur ...	12	2	684	2	...	...	...	2	...	1	...	...	...	...	...	...	2	1	3	·01	·00	·01	·01	26
27	Upper Sind Frontier ...	7	...	422	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
	Total for the Presidency ...	360	166	26,253	921	1,350	1,201	1,151	1,395	1,019	464	672	1,481	3,644	5,475	4,305	3,131	12,621	12,667	25,288	1·24	1·35	1·29	2·15	

N. B.—These figures do not include deaths among Europeans, Eurasians and Fighting men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

FIFTY-FIRST ANNUAL REPORT

OF THE

SANITARY COMMISSIONER FOR THE GOVERNMENT OF BOMBAY

1914

WITH

APPENDICES

INCLUDING

The Annual Report of the Sanitary Board, Bombay Presidency,

AND

The Annual Reports of the Health Officers of the Ports of Bombay Karachi and Aden.

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1915

ANNUAL SANITARY REPORT, 1914.

(Maximum limit, 25 pages.)

CONTENTS.

SECTIONS I TO IV.—No remarks.

SECTION V.

	PAGE
General population and Vital Statistics	1—7
European and Eurasian	1
Indian—	
Births	1
Deaths	3
Infant Mortality	5
Extract from Report of Executive Health Officer, Bombay	5, 6
Deaths by causes	7
Cantonments in Quasi-Foreign Territory	7
Rainfall	7

SECTION VI.

History of Chief Diseases	8—20
Cholera	8
Small-pox	10
Fever	11
Anti-malarial measures	12
Sand-fly fever	13
Plague	13
Plague preventive measures	15
Dysentery and Diarrhœa	17
Injuries	18
Snake-bite	18
Rabies	18
Respiratory Diseases	19
Other causes	20

SECTIONS VII and VIII.—No remarks.

SECTION IX.

Sanitary Works—Civil	21—28
Grant from Government of India and Provincial Funds	22
Notified area	24
Sanitary Committees	25

SECTION X.

Personal Proceedings	28

APPENDICES.

Annual Report of the Sanitary Board	... ...	1—3
„ „ Health Officer of the Port of Bombay	... ...	4—10
„ „ „ „ „ „ Karáchi	... ...	11—14
„ „ „ „ „ „ Aden	... ...	15—18
Death-rates before and after completion of drainage and water-supply projects	...	19
Annual Form No. I. Births	... ...	20
Do. II Births and Deaths	... ...	21
Do. III Deaths by Months	... ...	22
Do. IV Deaths by Ages	... ...	24—25
Do. V Deaths by Classes	... ...	26—27
Do. VI Deaths by Districts and Towns classified by causes	...	28—37
Do. VII Deaths from Cholera	... ...	38
Do. VIII Deaths from Small-pox	... ...	38
Do. IX Deaths from Fever	... ...	39
Do. X Deaths from Dysentery and Diarrhœa	... ...	39
Do. XI Deaths from Respiratory Diseases	... ...	40
Do. XII Deaths from Plague	... ...	40

ANNUAL SANITARY REPORT FOR 1914.

SECTIONS I TO IV.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

1. In accordance with Government Notification in the Revenue Department No. 6546, dated 15th July 1913, published at page 1101 of Part I of the *Bombay Government Gazette*, dated 17th July 1913, a new mahál, called "Páthardi Mahál" of the Sheogaon Táluka of the Ahmednagar District was created with effect from 1st day of September 1913.

2. Throughout this report the population figures are not estimated but are actuals revealed by the census of 1911.

Europeans.

3. During the year, among 30,192 Europeans 288 births and 280 deaths were recorded against 354 and 273 in 1913, the calculated birth-rate was 9·54 *per mille*, against 9·42 in 1913 and the death-rate 9·27 against 9·42. 137 male and 151 female births were recorded, against 183 and 171 in 1913, while 179 male and 101 female deaths were reported against 167 and 106 in 1913.

Eurasians.

4. In a population of 8,902, 173 births were registered, against 193 in 1913, and 152 deaths against 124, the birth-rate was 19·44 *per mille*, against 21·68 in 1913 and the death-rate 17·08 against 13·93.

Of the births 97 were males and 76 females against 99 and 94 in 1913, whilst of the deaths 74 were males and 78 females against 58 and 66 in 1913.

Indian population.

5. The population including Sind is 19,587,383. There are now including Bombay City, 27 collectorates comprising 248 rural (táluka or mahál) Registration Circles, 104 towns and 9 cantonments: in addition statistical returns are received from 7 cantonments in the *quasi*-foreign territory.

The population of the rural circles is 16,407,762, of the town circles 3,103,640, of the cantonments in British territory 75,981 and of the cantonments in Foreign territory 100,089 persons.

Births.

6. 733,076 births were registered showing increases of 48,273 and 66,454 over the figures for 1913, and for the decennial mean respectively. The actual number of births recorded annually since 1904 is given below :—

1904	... 648,594	1908	... 660,201	1912	... 684,890
1905	... 611,173	1909	... 657,685	1913	... 684,803
1906	... 625,486	1910	... 689,701	1914	... 733,076
1907	... 610,533	1911	... 705,090		

Birth-rate.

7. The birth-rate for the year was 37·43 and is compared below with the rates recorded in other parts of India :—

Bengal ...	... 33·86	Bihár and Orissa	... 42·38
Madras ...	... 33·5	United Provinces	... 44·93
Assam ...	... 32·94	Punjab	... 46·28
Burma ...	... 35·40	Central Provinces	... 51·37

If Sind and Bombay City be excluded the birth-rate for the Presidency was 42·1. It is instructive to note the very wide difference between the birth-rate for rural areas (43·68) and that for urban areas (26·9).

Birth-rate for rural areas.

8. Over rural areas the variation in birth-rate was from 61·02 for Nandurbár Táluka in West Khándesh to 28·64 for Supa petha in Kánara. Of the 187 tálukas, pethas and maháls 18 returned birth-rates under 35 per 1,000— of these 7 (Kárwár, Kumta, Ankola, Sirsi, Yellápur, Múndgod and Supa) were in Kánara; 3 (Málvan, Guhagar and Dapoli) in Ratnágiri; 3 (Madha, Pandharpur and Málsiras) in Sholápur; 3 (Dahánu, Bassein and Sálsette) in Thána; 1 (Malcolm-peth) in Sátára; and 1 (Bhimthadi) in Poona.

Birth-rate for urban areas.

9. Disparity in birth-rate is much more evident in urban areas; Dohád recorded a birth-rate of 67·83, while the rate for Poona City was only 10·33.

Out of 85 towns 23 returned birth-rates of over 40, *viz.*, Dohád (67·83), Dhandhuka (59·83), Sholápur (58·95), Ránebennur (54·34), Umreth (50·47), Gokak (48·87), Borsad (47·64), Gokarn (47·51), Jambusar (47·16), Erandol (46·94), Amalner (45·11), Nadiád (44·31), Gadag-Bettigeri (43·91), Dholka (43·01), Bársi (42·88), Parola (42·46), Nasirábad (42·20), Kaira (42·07), Bágálkot (41·81), Kapádvanj (41·29), Jalgaon (41·23), Hubli (41·19), Yeola (40·49).

At the other end of the scale there are 13 towns in which the recorded birth-rate was less than 20, *viz.*, Manmad (19·86), Wái (19·64), Uran (17·59), Karad (17·27), Islámpur (17·26), Belgaum (17·17), Ahmednagar (16·91), Lonávla (16·75), Junnar (16·32), Kurla (14·25), Igatpuri (14·08), Surat (11·44), and Poona (10·33).

It is expected that the appointment of Health Officers for Surat and Poona will lead to an improvement in registration. In Ahmedabad a very satisfactory rise in the number of births is recorded; the birth-rate of 34·56 against 30·84 in 1913 and 23·4 in 1912 should encourage Dr. Amin in his efforts to improve registration.

Birth-rate—Bombay City.

10. In Bombay City 19,360 births were registered against 19,327 in the previous year, the birth-rate being 20·10.

Birth-rate—Sind.

11. In Sind the birth-rate was 21·95 against 21·06 in 1913. A divergence is again noticed between rural and urban birth-rates, but that for urban areas (33·18) is much in excess of that for rural areas (20·42) thus reversing the condition in the Presidency.

Registration in rural areas in Sind is very defective. Major Murphy, I.M.S., during the year made certain suggestions to the Collectors of Karáchi, Nawabsháh and Hyderabad which should result in some improvement.

Of the 19 urban circles two—Karáchi (40·61) and Lárkhána (40·76)—returned birth-rates of over 40.

Birth-rate—Cantonments.

12. The birth-rates for all cantonments were below 20, and varied between 18·99 for Karáchi Cantonment and 7·1 for Ahmednagar.

Births by sexes.

13. Out of 733,076 births 379,420 were males and 353,656 were females.

The ratio of male to female births was as 107·29 to 100. The corresponding figure for males last year was 108·15. The proportion of male to female births varied from 101·62 in the city of Bombay to 139·00 in Nawábsháh Collectorate.

Still births.

14. 10,034 still births or 1·37 per cent. of the total live births were registered. The corresponding figures for 1913 were 9,753 and 1·42 per cent.

The percentage of still to live births varied from 0·15 for Ahmednagar to 7·96 for the City of Bombay. It is probable that in many villages still births are not recorded.

In Belgaum (2·39), Dhárwár (3·61), Bijápur (2·26) and Kánara (6·05) the percentages of still to live births are high as compared with the remainder of the Presidency.

15. 577,504 deaths were registered against 521,539 in 1913, the increase of 55,965 being due very largely to cholera and intestinal diseases. The number of deaths recorded in each year since 1904 is given :—

Deaths.

1904	... 764,914	1908	... 501,838	1912	... 683,210
1905	... 588,894	1909	... 505,936	1913	... 521,539
1906	... 648,019	1910	... 560,003	1914	... 577,504
1907	... 606,606	1911	... 555,312		

16. The recorded death-rate was 29·48 against 26·63 in 1913, and a decennial mean of 30·33.

Death-rate.

The death-rates recorded in other parts of India are given :—

Madras ...	... 25·1	Bihár and Orissa	... 28·32
Bengal ...	... 31·57	Punjáb	... 31·96
Assam ...	... 24·66	United Provinces	... 33·46
Burma ...	... 24·13	Central Provinces	... 36·69

17. Excluding Bombay City and Sind the death-rate for the Presidency was 32·12.

Death-rate for Presidency.

The difference between the rates for rural (31·82), and urban (33·76) areas was not marked.

For rural areas the highest death-rate (40·42) was recorded in Násik District, and the lowest (21·65) in Ratnágiri District. Taking the táluka mahál, or petha as the registration unit, the highest death-rates were recorded from those included within the districts of East and West Khándesh, Násik, Ahmednagar, Poona, Sholápur and Sátára. Out of 77 registration units into which these districts are divided 22 or 28·5 per cent. returned death-rates of over 40. But of the 110 registration units for the remainder of the Presidency only one (Wágra Táluka of Broach) recorded a death-rate of 40. The high death-rate area is practically that of epidemic cholera.

For urban areas there was naturally a very wide variation in the death-rates, between 72·12 for Sholápur and 16·83 for Godhra. Out of 85 towns 16 returned death-rates of over 40, *viz.*, Sholápur (72·12), Nipáni (61·88), Bársi (59·23), Lonavla (55·47), Pandharpur (52·61), Alibág (46·16), Nasirábad (45·88), Navalgund (43·3), Gokák (43·27), Manmád (42·61), Ahmedabad (41·66), Nadiád (41·48), Poona (40·78), Ránder (40·78), Kaira (40·56), Dhandhuka (40·54).

18. The death-rate for Bombay City was 32·70, the registered number of deaths being 31,500 against 31,505 in 1913. The mean death-rate for the previous 10 years was 40·72.

Death-rate for Bombay City.

19. The death-rates are crude and make no allowance for differences in age and sex distribution. The following table has been prepared according to the Registrar-General of England's method. The standard death-rate of each town is the death that should occur provided the age and sex distribution were the same as for the Presidency proper: in other words it is the application of the death-rate at different age periods in the Presidency to the census population of each town :—

Corrected death-rates.

	Standard death-rate.	Factor for correction.	Recorded death-rate 1914.	Corrected death-rate.
Presidency (excluding Bombay City and Sind).	37·7	1	32·12	32·12
Bombay City	31·2	1·21	32·7	39·56
Ahmedabad	36·3	1·03	41·66	42·9
Karáchi	35·6	1·06	39·2	41·55
Surat	36·6	1·03	24·33	25·03
Poona	36·5	1·03	40·78	42·01
Sholápur	56·3	1·03	72·12	74·28

Death-rate in Sind.

20. The death-rate for Sind was 17·24. The variation between the-rate for urban areas (33·9) and that for rural areas (14·96) is very marked. The urban death-rates range between (13·26) for Matiari and 65·07 for Mirpurkhás, where plague was epidemic.

Death-rates in cantonments.

21. The lowest death-rate (9·04) was recorded in Ahmednagar and the highest (64·08) in Deoláli.

Deaths by sexes.

22. 298,988 male and 278,516 female deaths were recorded, giving death-rates of 29·34 and 29·63 respectively against 26·46 and 26·80 for 1913. For every 100 females 107·35 males died: the corresponding figure for 1913 was 107·04. In Sind the ratio of male to female deaths was as 117·87 to 100.

Natural increase or decrease in population.

23. Over the Presidency as a whole the births exceeded the deaths by 155,572. Figures for collectorates are given in columns 6 and 9, Annual Form II, and the following table gives the natural increase or decrease in population for the principal registration areas:—

	Excess of births over deaths.	Percentage increase on population of 1911.	Excess of deaths over births.	Percentage decrease.
Presidency, excluding Sind and Bombay City	151,189	1·00	.....	.....
Sind	16,523	·46	.....	.....
Bombay City	.....	.....	12,140	1·26

Deaths by ages and sexes—Annual, Form No. IV.

24. The noteworthy feature is the high mortality among children under 5 years of age. 264,302 deaths giving a death-rate of 95·51 were recorded. In 1913 the corresponding death-rate was 86·34, and in 1912 107·36: over 45 per cent of the total recorded deaths occurred at this age period. A high death-rate among children is invariably found in years of cholera and diarrhœal disorders, and is directly attributable to the excremental contamination of soil, water and food. The prevention of this contamination is the most important problem which confronts those interested in sanitation whether they reside in Eastern or Western countries. One of the most satisfactory advances in this direction of recent years is the disposal of excrement in pits as carried out at Násik under the direction of Major Marjoribanks, I. M. S., and described by him in a paper read at the Sanitary Conference held at Lucknow in January 1914. This paper deserves widespread attention.

Dr. Dalal, the Deputy Sanitary Commissioner of the Southern Registration District, makes some interesting observations on child mortality in that District in his annual report. The infant mortality rate for Kánara 214·8 was far in excess of those for the districts of Dhárwár (161), Belgaum (150) and Bijápur (146·4). This excess is invariable. The following table gives the percentage of deaths which occurred in infants under 1 month, between 1 and 6 months, and between 6 and 12 months:

District.	Under 1 month.	Between 1 and 6 months.	Between 6 and 12 months.
Belgaum	40·31	29·52	30·17
Dhárwár	42·09	31·73	26·18
Bijápur	37·44	35·57	26·99
Kánara	61·16	23·89	14·95

Thus in Kánara many infants die, and in the large majority of instances, within one month of birth: the infantile death-rates by tálukas of Belgaum and Dhárwár Districts show that in certain tálukas the percentage of infants dying within 30 days of birth approximates that of Kánara, and these tálukas are those in which rice is grown and in which malaria is endemic.

In these four districts 20 per cent. of the total mortality occurred in children between 1 and 5 years of age, but the percentages vary between 9·8 for Kánara and 24·5 for Bijápur. The comparative low percentage of deaths at this age period in Kánara is constant, and the variation between the percentages for the different districts will assume importance when it is possible to take steps to reduce the waste of life at this age period. It may be said generally that for the districts of Belgaum, Dhárwár and Bijápur attention to conservancy will effect an enormous improvement, while in Kánara the measures of chief importance are those for combating malaria and the results of prostitution.

Infant Mortality.

25. The mortality of infants based on the number of registered births was 193·81 per 1,000, against 188·42 during the previous year. The proportions were 201·86 among males and 185·15 among females, as compared with 194·03 and 182·34, respectively.

The following extract from the Annual Report for 1914 of the Executive Health Officer, Bombay Municipality, deals with infant mortality in Bombay City. It is necessarily short, and those interested are recommended to read the full report of the Executive Health Officer, and the report of the Bombay Sanitary Association :—

Infant Mortality.

The total mortality among infants or children upto one year of age during the year under notice was 7,580, giving a gross infant mortality rate of 385·1.

The following table classifies the mortality from principal causes among infants arranged under the three age-periods of 1—30 days, 1—6 months and 7—12 months during 1914; the corresponding figures for 1913 have been inserted for comparison :—

Age-period.	Year.	Small-pox.	Mea-sles.	Mala-ria	Ague and Remit-tent fever.	Diar-rhœa and Dysen-tery.	Prem-ature birth.	Debility.	Nervous system.	Respira-tory system.	All causes.	Percent-age of deaths in each age-period to total deaths under one year of age.
1 to days .	1914...	1	...	...	23	30	184	1,914	294	67	2,588	34·14
	1913...	3	...	...	29	34	181	1,908	302	66	2,591	34·46
1 to 6 months.	1914...	36	18	3	56	158	3	232	683	1,040	2,360	31·13
	1913...	27	13	5	64	151	...	259	694	833	2,203	29·42
7 to 12 months	1914...	23	64	7	72	391	..	41	294	1,318	2,632	34·72
	1913...	25	53	9	93	430	...	40	282	1,214	2,694	35·97
Total ...	1914...	60	82	10	151	579	187	2,187	1,271	2,425	7,580	...
	1913...	55	66	14	186	615	181	2,207	1,278	2,113	7,488	...

From an examination of the figures, it will be noticed that Measles (64), Malaria (7), Ague and Remittent Fever (72), Diarrhœal Diseases (391) and the Diseases of the Respiratory System (1,318) were most fatal to infants in the age-period of 7-12 months, while deaths due to Small-pox (36) and Diseases of the Nervous System (683) were most numerous in the age-group of 1-6 months, as those due to Debility were in the first 30 days. Out of 187 deaths due to immaturity at birth, (184) occurred in the first month of life and the remaining 3 in the next age-period.

The study of the subject may be pursued with the help of the next table, which shows the percentage or proportion of mortality under each principal cause of death to the total mortality from all causes among infants in each of the three age-groups.

The highest percentage of total infant mortality (34·72) was registered among children of 7—12 months old; this was 1·25 lower than in the preceding year, and the lowest (31·13) in the age-period of 1—6 months; this was 1·71 higher than in 1913.

Table of percentages of infant deaths from principal causes in 1914.

Age-period.	Small-pox.	Measles.	Malaria.	Ague and Remit-tent fever.	Diar-rhœa and Dysen-tery.	Prem-ature birth.	Debility.	Nervous System.	Respi-ratory System.	All causes.
1 to 30 days ...	0·03	...	...	0·88	1·15	7·15	73·95	11·36	2·58	34·14
1 to 6 months ...	1·52	0·76	0·12	2·37	6·69	0·12	9·83	28·94	44·06	31·13
7 to 12 months ...	0·87	2·43	0·26	2·73	14·85	...	1·55	11·16	50·07	34·72
Total ...	0·79	1·08	0·13	1·99	7·63	2·46	28·85	16·76	31·99	...

Scrutinizing the foregoing table with the aid of the preceding it will be noticed that out of 19,679 children registered as born during the year (1) 2,583 or 3 less than in 1913, died within the first month of life, ; for nearly three-fourths of these (1914 or 73·95 per cent. against 1908 or 73·63 in 1913), the cause of death assigned was Debility; that is want of vitality, immaturity at birth, wilful or ignorant neglect and the methods adopted by the unskilled or untrained women attending the labour; (ii) 2,360 or 157 more than in 1913, died before attaining the age of six months; the cause of death in the descending order of incidence, being 44·06, Diseases of the Respiratory System (against 37·81 in 1913), 28·94, Diseases of the Nervous System (Convulsions) against 31·50 in 1913, 9·83 Debility (against 11·75 in 1913), and 6·69 Diarrhœa and Dysentery (against 6·85 in the preceding year); (iii) 2,632 of the children or 62 less than in 1913 died before reaching the age of twelve months; the cause of death, being 50·07 Diseases of the Respiratory System (against 45·06 in 1913), 14·85 Diarrhœa and Dysentery (against 15·96 in 1913) and 11·16 Diseases of the Nervous System (Convulsions) against 1·46 in 1913.

It will be observed that of the total mortality under one year of age, more than 34 per cent. occurred in the first month of life, and, further, that of the deaths at this early period of life, nearly three-fourths are due to Debility; in the second and third groups the highest proprotion of deaths is associated with the Diseases of the Respiratory System. The next most fatal cause is the Diseases of the Nervous System in the first and second groups and Diarrhœa and Dysentery in the third, all of which denote exposure and defective feeding.

The following table sums up the work of the ten Municipal Nurses and Midwives so far as it relates to attendance on confinements and infant visitations during the year. They have, during their daily rounds, to find out prospective mothers and attend on confinements among the poor and continue their visits even after the lying-in-period and give advice on the care and feeding of infants. Other aspects of their work will be dealt with later on:—

Summary of inquiries and of work of municipal nurses and midwives.	1909.	1910.	1911.	1912.	1913.	1914.
Total number of births (including still-born), registered.	21,645	21,505	23,135	23,186	21,236	21,240
Percentage of still-births to the total number of births registered.	8·3	7·2	7·6	7·1	7·4	7·3
Number verified by the nurses	13,677	12,762	13,578	14,417	13,639	13,950
Percentage of the number verified to the total ...	63·1	59·3	58·7	61·1	64·2	65·6
Percentage of the confinements unattended ...	18·0	15·2	12·7	13·0	12·8	9·5
Percentage of the confinements attended by unskilled women.	58·3	59·6	60 7	59·6	60·0	63·1
Percentage of the confinements attended by qualified nurses (including municipal).	11·3	12·0	13·2	13·9	14·2	13·7
Percentage of the confinements attended by municipal nurses.	4·5	5 6	5·5	6·6	8·7	8·7
Percentage of children born in hospitals ...	12·3	13·2	13·2	13·5	12·8	13·5
Percentage of children born in healthy condition.	67·8	68·9	74·9	73·7	71·9	75·2
Percentage of children fed on breast ...	64·9	59·8	69·7	66·5	68·4	62·7
Percentage of children dying within 30 days ...	12·3	11·8	11·5	11·8	10·7	10·6
Percentage of the cases where the mothers left home for work.	31·3	27·9	34·4	29·7	30·6	33·0

It will be observed from the foregoing table that out of the total number of 21,240 births (including still-births) registered in the City during the year, 13,950 or 65·6 per cent. were visited by the Municipal Nurses and Midwives: the percentage of verification being the highest since infant visitation was started in June 1908.

Passing on to measures for the reduction of infant mortality I referred in my last Annual Report to the scheme, which was brought into effect in July 1913, for giving relief to poor women during confinement in the shape of necessaries and comforts such as milk, loaves, bed, blanket, charpoy, etc; and pointed out that during the six months of the year 42 cases had been relieved, the number having increased each succeeding month. The experience of 1914 points to increased advantage having been taken of the benefits offered: for such relief was dispensed in 166 cases during the year under report, 100 of these being in the second half of the year against 42 in the same period for 1913.

Ahmedabad City.

26. The mean death-rate for the past five years is 50·14, a very high rate for a city which is comparatively a light sufferer from plague. In 1914 the death-rate was 41·66.

The Health Officer has been able to effect a very satisfactory improvement in the registration of births, the birth-rate having risen from 16·93 in 1907 to 34·56 in 1914.

The most important diseases in Ahmedabad are bowel complaints and malaria. Dr. Munsiff, the Deputy Sanitary Commissioner, has investigated the conditions underlying malaria, and attention to his recommendations will result in benefit; the cleansing of the town, if efficiently and constantly carried out will cause a reduction of mortality similarly to that experienced by English towns during the past 40—50 years.

Deaths by causes.

27. The subjoined table shows the number of deaths in 1914 arranged according to causes and contrasted with the results for 1913, and with the mean of preceding five years :—

	Mean for five years, 1909—1913.		1914.		1913.	
	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.
Cholera ...	21,573	1·12	17,779	·91	5,134	·26
Small-pox ...	6,102	·32	4,209	·21	9,833	·50
Plague ...	40,797	2·11	20,060	1·02	25,288	1·29
Fever ...	248,616	12·99	259,164	13·23	246,319	12·58
Dysentery and diarrhœa.	40,858	2·14	42,961	2·19	34,021	1·74
Respiratory diseases...	58,983	3·08	65,941	3·37	59,418	3·03
Injuries ...	7,250	·38	7,670	·39	7,711	·39
Other causes ...	141,012	7·37	159,720	8·15	133,815	6·83
All causes ...	565,191	29·51	577,504	29·48	521,539	26·63

For comments on the causes of deaths, vide section VI.

Cantonments in quasi-foreign territory.

28. The total number of births registered in those Cantonments which are situated in quasi-foreign territory during the year 1914 was 2,513 against 2,293 in 1913, the birth-rate being 25·77 per mille as against 22·90 in 1913. There were 3,880 deaths, giving a ratio of 38·76 per mille against 3,446 and a ratio of 34·42 in 1913. The statistics are tabulated below :—

Statement showing the names of Cantonments with Population and Deaths from diseases for the year 1914.

Cantonments.	Population according to census of 1911.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from								Ratio of deaths per 1,000 of population.							
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.
Aden. Municipal limits.	40,684	6⅞	602	862	21·19	...	18	...	222	1,060	...	18	1,078	2,336	...	·44	..	5·46	24·58	...	·44	26·50	57·42
Aden. Purely civil population of cantonment.	307	7⅜	42	...	...	...	...	...	3	1	...	2	3	9	...	...	...	9·77	3·26	...	6·51	9·77	29·32
Baroda	3,478	1	3,478	57	16·39	...	...	...	31	3	...	...	29	63	...	...	...	8·91	·86	...	...	8·34	18·11
Deesa	7,129	·5	1,713·20	141	19·78	...	...	...	8	9	...	...	75	92	...	...	...	1·13	1·26	...	...	10·5 2	12·90
Mhow	22,360	6·5	3,440	373	16·68	...	...	...	226	...	...	...	337	593	...	...	...	10·17	...	...	...	16·41	26·52
Nasirabad	16,144	8·58	1,881	754	46·70	...	...	...	243	...	...	16	241	500	...	...	...	15·05	...	...	·99	14·93	30·71
Neemuch	9,786	4·52	2,165	319	32·60	...	...	...	118	4	147	1	12	282	...	...	...	12·05	·41	15·02	·10	1·23	28·81
Rájkot	201	·56	359	7	34·82	...	...	...	2	...	...	...	3	5	...	...	...	9·95	...	...	...	14·93	24·88
Total ...	100,089	100·87	992	2,513	25·77	...	18	..	853	1,017	147	37	1,893	3,880	...	·18	...	8·52	10·16	1·47	·37	18·06	38·76

Rainfall.

29. The feature of the year was the heavy precipitation during July, August and September. This resulted in the scouring of the land and the contamination of public water supplies thereby. This factor was responsible in large measure for the comparative unhealthiness of the year. The prices of grains during the year were normal save for certain tálukas in Sholápur and Sátára Districts in which the more lowly paid Government servants were granted grain compensation up to the end of August.

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Number of deaths.

30. 17,779 deaths from cholera were recorded compared with 5,134 in 1913. During the last 20 years there have been six years in which the mortality from cholera has been more heavy.

Mortality for last 20 years 1895 to 1914.

Year.	Number of deaths.	Year.	Number of deaths.	Year.	Number of deaths.	Year.	Number of deaths.
1895	8,890	1900	163,889	1905	5,396	1910	3,694
1896	35,404	1901	13,600	1906	46,119	1911	5,817
1897	57,109	1902	3,229	1907	7,656	1912	64,505
1898	4,368	1903	1,825	1908	1,759	1913	5,134
1899	8,579	1904	13,156	1909	28,714	1914	17,779

31. *Distribution*:—20 out of the 27 Collectorates reported deaths, but in only 12 was the disease in epidemic form; 12,409 deaths or 70 per cent. of the total mortality occurred in the five Collectorates of Sátára, Poona, Ahmednagar, Sholápur and Násik, while the collectorates to be less seriously affected were Thána, Belgaum, Bijápur, East Khándesh, Kolába, Surat and Broach.

Under 7 per cent. of the villages in the Presidency were infected, but in the 4 Collectorates of Ahmednagar, Sátára, Poona and Sholápur more than 20 per cent. of the villages took part in the epidemic.

32. *Seasonal prevalence*:—During January and February cholera was epidemic in Broach and died down during March: there is no reason to attribute the high mortality in the remaining months of the year to this Broach epidemic. Infection was imported into the Ahmednagar District in March, spread in April, was further disseminated in May by the pilgrims from Pandharpur for the mortality to reach its maximum during June. From September the virulence abated till in December only a few cases were reported from the districts of Thána, Násik, Poona, Sátára and Surat and in the City of Bombay. The deaths reported in December numbered 105 as compared with 80 in January and 4,183 in June.

33. *History of the epidemic*:—On the 1st March infection was brought to Mungi in the Sheogaon Táluka of Ahmednagar District from near Paithan in Hyderabad State. Paithan is a pilgrim resort. This led to 190 deaths in Ahmednagar District during March. At the end of March and beginning of April pilgrims collected at Pandharpur, and the first cases of cholera were reported on the 3rd of April.

There were 110 attacks at Pandharpur and of the first 53 cases 52 occurred among pilgrims, and principally those from Hyderabad. Dr. D'Mello, the Acting Deputy Sanitary Commissioner, visited Pandharpur at this time to assist the Municipality, but was powerless owing to the absence of staff to prevent the dissemination of infection by returning pilgrims. Dr. da Gama has shown that the infection travelled by road in several directions, and the most evident were (*a*) the route through Málsiras, Koregaon, Sátára, and Jávali Tálukas: and (*b*) through Sángola and Tásgaon Tálukas into the Southern Mahratta Country. In this way serious epidemic conditions were established in June at a time when pilgrims from the infected localities were preparing to return to Pandharpur to celebrate the Ashadi fair. Owing to cholera the number of pilgrims was less than that anticipated, but had severe cholera broken out among them, the cholera death-rate for the Presidency would probably have been enhanced. Perhaps the most important of the measures adopted at the Ashadi fair was the attachment of Sub-Assistant Surgeons to the different palkis to detect actual cases among the attacked pilgrims both during the inward and outward marches. Three cases were found and difficulty was experienced in isolating them and their contacts. This is a matter which will

receive attention. There is no doubt but that a great deal of cholera was caused by the pilgrims returning from the Ashadi fair, but the evidence is not very clear, and in the autumn months Poona City proved to be a very important distributing centre. The epidemic in Poona became severe in July, and owing to the coincidence of dates might well have been attributed to returning pilgrims. The histories of the first 160 cases were investigated carefully, and no association with Pandharpur was found. The whole epidemic has been investigated very ably by Captain Morison, I. M. S., as a part of the special research on which he is occupied. He brings forward very convincing proof of the carriage of infection to Poona City by means of water from the Lake Fife. An epidemic of cholera occurred in a village situated on the banks of one of the feeders of the lake, and the infection was washed through the lake into the city mains by the heavy rains of July and August.

The influence of pilgrim centres in the dissemination of cholera is brought out very clearly in a report by Dr. D'Mello on the epidemic in Shirála Peta of Sátára District. The village of Bhatshirgaon, in the neighbourhood of which is a temple the resort of pilgrims in May, was infected indirectly from Pandharpur and acted as a centre of distribution: the villages in this peta situated on the bank of the River Várna were, however, infected from the villages on the opposite bank to which infection had also travelled from Pandharpur. Very shortly all the villages on the river bank were infected, but there is no reason to imagine that the infective material travelled down stream. During the hot season the people dig holes on the banks of the river and encourage stagnant pools by the erection of bunds. People bathe and wash clothes in these pools, and the risk of contamination is very real for marriage parties during May and June lead to wide movements of population. Some villagers obtain their water from step wells, and Dr. D'Mello draws attention to a very severe epidemic among the inhabitants of a hamlet to Sagaon, a town on the banks of the river. The population of the hamlet is 200, and no less than 31 attacks followed the introduction of infection by a woman who had attended a sick relative in Sagaon, and subsequently acquired the disease. The only source of water for these people is a step well. Water is not the only vehicle for the conveyance of the infective material, and cases of dissemination after dinners have been reported by Dr. D'Mello who brings forward instances of the spread of the disease from the dinner parties following the cremation of a body.

Dr. Dalal, Deputy Sanitary Commissioner of Southern Registration District, toured in Chikodi Táluka of Belgaum District during the epidemic of cholera, and endeavoured to cope with the disease by disinfection of water supplies, and by instructing the villagers how to remove refuse, etc. His efforts were hampered owing to the lack of a trained sanitary staff.

Dr. Dalal brings forward an interesting instance of water born cholera: Hubli City is supplied chiefly by pipe water, but one portion is not; a woman from Pandharpur infected with her discharges the water in the nulla from which the people draw water; an epidemic broke out, and was checked at once by issuing the pipe water.

During May an epidemic was reported from Unkal, a village on the catchment area of the lake supplying Hubli City. 52 cases without death were reported. Dr. Dalal visited the village and reports that the individuals attacked were all confined to one street, and that infection was probably due to the washing of surface impurities into a neighbouring well from which all obtained their water. The disease was probably epidemic diarrhœa and not cholera, and affected young adults mainly. The inhabitants of the village who drank the tank water were uninfected.

Dr. Munsiff visited Broach to assist the authorities in the elimination of the disease.

The history of cholera during the year again emphasises the danger underlying the movements of the population: if cholera breaks out among the pilgrims attending the spring fair at Pandharpur, the infection is carried throughout the Deccan and Southern Mahratta Country, and disseminated thoroughly by the marriage parties who move from village to village during May and June.

In the prevention of cholera the proper control of pilgrim centres will do much, but elimination of the disease must depend on the avoidance of the excremental contamination of water, food and soil.

SMALL-POX.

Deaths from small-pox.

34. 4,209 deaths were recorded (2,100 males and 2,109 females) as compared with 9,833 in 1913 and a decennial mean of 6,023.

The annual mortality from small-pox since 1903 is shown below :—

Year	Number of deaths from Small-pox.	Year.	Number of deaths from Small-pox.
1903	2,752	1909	5,019
1904	4,289	1910	4,600
1905	16,985	1911	4,727
1906	4,063	1912	6,331
1907	1,862	1913	9,833
1908	2,526	1914	4,209
Total ...	32,477	Total ...	34,719
Mean ...	5,413	Mean ...	5,786

Progress of the disease.

35. At the end of 1913 small-pox was prevalent in the Deccan, Konkan and Southern Mahratta Country : every district in this area reported cases. Guzerát was free from the disease, while in Sind there were no cases in Nawábsháh, Thar and Párkar, Sukkur and Jacobabad. The highest mortality was in March, and from then the number of deaths decreased gradually. In November and December the annual rise in the incidence of the disease commenced.

The Collectorates to suffer most severely were Kolába (0·71), Násik (0·61), Dhárwár (0·55), Sholápur (0·51), East Khándesh (0·44), Thána (0·36), and Kánara (0·36).

Deaths were reported from 1,153 towns and villages against 2,470 in 1913.

High death-rates were returned from the following towns :—Bhiwndi (6·24), Sholápur (4·62), Yeola (3·01), Pánvel (2·07), Mahád (1·96), Kurla (1·52), Alibág (1·49), Bándra (1·27) and Bársi (1·27).

For the whole Presidency the death-rate was 0·21 as compared with 0·50 in 1913 and a quinquennial mean 0·32.

Deaths by age.

36. Of the total number of deaths 30 per cent. occurred among children under one year of age, 51 per cent. among children between 1 to 10 years, and the remaining 19 per cent. among persons over 10 years of age.

37. The case mortality was low (13·53).

The influence of vaccination on small-pox is evidenced by reports received from the Deputy Sanitary Commissioner, Southern Registration District : an analysis has been made of 1,932 attacks occurring in 54 villages, the total population of which was 26,501. 180 deaths resulted : a total mortality rate of 9 per cent. Of the 1,932 attacks 837 were among the vaccinated and 1,095 among the unvaccinated. It is calculated that 80 per cent. of the inhabitants were vaccinated. So 21,201 were more or less protected by vaccination and 5,300 were totally unprotected. Of the former 4 per cent. and of the latter 20 per cent. were attacked. The protection from attack is therefore very marked, and it must be remembered that no isolation is possible, and that members of the family often occupy the same room as the person attacked.

Of the vaccinated 26 died : the mortality rate being 3 per cent. against a rate of 14 per cent. for the unvaccinated. For 1,924 attacks and 175 deaths the analysis has been carried further to show the age incidence of attacks, and the mortality at the various age periods for the vaccinated and unvaccinated. The information is given in the table :—

Age period.	Percentage of attacks at each age period.		Case mortality at each age period.	
	Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.
0—5	11·9	36·5	6·0	19·4
5—10	20·6	27·5	1·7	6·0
10—20	35·5	19·1	3·7	9·5
20—40	30·6	15·4	2·3	16·7
Over 40	1·4	1·5	0·0	37·5

It is possible to sub-divide the vaccinated further into two groups according to the number and quality of the vaccination marks: it has been proved that 4 good marks mean good protection. The following table is therefore instructive :—

Age period.	Good protection.			Bad protection.		
	Number of cases.	Number of deaths.	Case mortality.	Number of cases.	Number of deaths.	Case mortality.
0—5	62	1	1·6	37	5	13·5
5—10	94	0	0·0	74	3	4·0
10—20	179	0	0·0	117	11	9·4
20—40	132	0	0·0	123	6	4·8
Over 40	4	0	0·0	8	0	0·0
All ages ...	471	1	0·2	359	25	6·9

There is only one conclusion possible from these figures: 4 good vaccination marks afford practically complete protection against death from Small-pox even under conditions of overcrowding and lack of ventilation so common in Indian villages.

Fever.

Deaths from fever.

38. 259,164 deaths (133,231 males and 125,933 females) were recorded as due to fevers against 246,319 in 1913 and 251,814 the mean of the preceding ten years.

39. The annual mortality attributed to fevers since 1903 is given below :—

Year.	Number of deaths from fever.	Year.	Number of deaths from fever.
1903	259,704	1909	223,888
1904	251,330	1910	263,528
1905	245,373	1911	223,027
1906	274,653	1912	286,321
1907	260,329	1913	246,319
1908	243,372	1914	259,164
Total	1,534,761	Total	1,502,247
Mean	255,793	Mean	250,374

The fever death-rate was 13·23 against 12·58 in 1913 and 12·99 the mean of previous five years.

The highest death-rates were recorded in the Collectorates of Ahmedabad (24·45), Broach (22·64), Lárkhána (19·42), West Khándesh (18·21), Panch Maháls (17·17), Sukkur (16·90), Surat (16·89) and Násik (16·05).

The death-rate for the City of Bombay was 2·93.

The minimum number of deaths 17,571 were in June and the maximum 24,143 in December.

The fever death-rate affords no indication of the prevalence of malaria, and such indication is necessary not only for pointing out the areas suitable for preventive measures but for the estimation of the value of prevention. The

Deputy Sanitary Commissioners are gradually noting the splenic indices in every town or village, and this malaria map when complete will be of great value.

Major Murphy, I. M. S., has completed the investigation for a very large area of Sind, and reports that the "incidence was unduly high in villages situated near old river beds or canals that still hold water long after the flow season has passed. The presence of a suitable mosquito breeding ground in the form of a village tank in dry neighbourhoods seems to have the effect of raising the spleen figure as compared with neighbouring villages." Major Murphy examined 50 tálukas in 7 districts, and the results are tabulated below: in 42 tálukas a spleen index of over 20 was found :—

District.	Number of tálukas examined.	Spleen rate under 20.	Spleen rate between 20 and 40.	Spleen rate between 40 and 60.	Spleen rate between 60 and 80.	Spleen rate over 80.
Khairpur Native State.	4	1 Mirwah (17) ...	2 Khairpur (35) ... Faiz Gung (31).	1 Gambat (50) ...	Nil	Nil.
Karáchi ...	10	1 Tatta (17) ...	4 Manjhand (31) ... Karáchi (31). Ghorabari (27). Mirpur Sakro (23).	1 Kotri (50) ...	3 Jati (70) ... Sujawal (65) Mirpur Bathoro (63).	1 Shahbunder (87).
Hyderabad ...	5	Nil	3 Hyderabad (40) ... Badin (36). Tando Allahyar (23).	1 Halla (48) ...	1 Guni (76) ...	.....
Nawábsháh ...	7	Nil	Nil	4 Shahdadpur (56) ... Kandiáro (56). Sakrand (54). Nawábshah (49).	1 Moro (61) ...	2 Naushábro (83). Sinjhoro (82).
Lárkána ...	11	1 Rotodero (19) ...	1 Johi (31) ...	5 Kambar (60) ... Mehar (57). Nasirabad (49). Sehwan (45). Mirokhan (42).	4 Kakar (68) ... Lárkána (63). Labdarya (63). Dadu (62).	Nil.
Sukkur ...	8	4 Pano Akil (18) ... Rohrl (13). Shikárpur (11). Garhi Yasin (8).	2 Ubauro (31). Sukkur (23).	2 Mirpur Mathelo (44) . Ghotki (41).	Nil	Nil.
Upper Sind Frontier.	5	1 Jacobabad (17).	3 Kashmore (36). Kandhkot (32). Thul (21).	Nil	Nil	Nil.

40. The preventive measures undertaken in Sind were as follows :—

(*a*) Employment of six Sub-Assistant Surgeons to visit and treat the sick in the most malarial tracts: two were sent to Lárkána, two to Sukkur, one to Hyderabad, and one to Thar and Párkar. They treated between them 7,388 cases of malaria, and 502 persons suffering from enlarged spleen.

(*b*) Free distribution and sale of quinine: 287 lbs. were distributed free, and 240 lbs. sold by Revenue official, etc., and 165 lbs. sold at the various Post offices: a total of 692 lbs. of quinine for a population of 3,506,635 or slightly over $1\frac{1}{4}$ grains per head. Mr. W. F. Hudson, I. C. S., in 1911 inaugurated a scheme for the quininisation of school children in the Thar and Párkar District: this met with great success, and Mr. Hudson has taken the initial steps towards the establishment of similar measures in Lárkána. The scheme consists in the daily administration of 2 grains in a palatable tabloid form. This organisation of quinine distribution in the Thar and Párkar District is worthy of imitation in other districts.

(*c*) Special measures in different Municipalities.—In Karáchi City the Health Officer organised a mosquito brigade consisting of one Inspector 7 Sub-inspectors and 30 coolies. 190 out of the 401 wells in the city were found to harbour anophelene larvæ; of these 57 were filled, 36 provided with wooden cover, 7 hermetically sealed, 1 covered and provided with hand pump, while in 34 larvae-eating fish were placed. In taking this action against wells no legal assistance was required. Quinine tablets were sold to the public at $\frac{1}{4}$ the cost of purchase.

The Jacobabad Municipality took steps to pump stagnant water from canal beds, and to treat disused wells with kerosine oil. Quinine pills were also distributed.

The Shikárpur Municipality filled in and drained two tanks, and treated other collections of stagnant water with kerosine oil.

41. In the Presidency it was not possible to employ Sub-Assistant Surgeons for special malarial work. The Deputy Sanitary Commissioners are progressing with the mapping out of malaria by means of the spleen index, and Dr. Munsiff, the Deputy Sanitary Commissioner of Gujárat made detailed malarial surveys of Ahmedabad City and of Dakore. Both reports are full of valuable advice and the measures recommended for Dakore if carried out properly will be of benefit to the inhabitants of a wide area, for the chief fair of the year takes place at the height of the malarial season.

207 lbs. of quinine were distributed free in Dhárwár, Ahmedabad, Kaira, Thána, Poona, Broach, Belgaum and Kánara Districts, and 369 lbs. were sold by the District Local Boards. In addition 1,888 lbs. were sold at the different Post offices. Thus in the Presidency 2,464 lbs. of quinine were sold or distributed free, an average of just over one grain per head of population. Including Sind the total sale and distribution of quinine anounted to 3,155 lbs. This is exclusive of the quantity dispensed at the various hospitals and dispensaries. A few of the Municipalities attempted anti-malarial measures, such as the filling up of shallow pools in Thána, pumping water out of excavations on the banks of the river at Násik, the filling of ditches at Kaira, filling of the fort moat at Ránebennur, and the engagement of a small staff of coolies at Bijápur to deal with stagnant pools.

The malarial survey parties were intended to guide by their investigations. Municipalities and other Local Bodies in anti-malarial work, and some progress was made in Kánara and Sind. The party working in Sind had to abandon work temporarily in August, but investigation in Kánara continued through the year.

42. Sand-fly fever may help to swell the number of deaths from fevers. It is initially not a fatal disease, but as the most prominent symptom is selected by the village officers as the cause of death, the death of any person from other cause during attack by this disease may be attributed to fever. A very widespread epidemic of sand-fly fever in the Navalgund Táluka of Dhárwár District has been investigated by Dr. D'Mello, and the infective fly (*phlebotomus pappatasii*) has been indentified by the Director of the Parel Laboratory.

Plague.

Deaths from plague.

43. 20,060 deaths (10,694 males and 9,366 females) were recorded against 25,288 in the previous year and 67,183 the decennial mean.

44. The table for the annual mortality from plague since 1903 given below shows that the incidence of the disease in 1914 is considerably below that for any other year in the period :—

Year.	Number of deaths from plague.	Year.	Number of deaths from plague.
1903	281,269	1909	24,319
1904	223,957	1910	25,043
1905	71,363	1911	100,399
1906	51,525	1912	28,984
1907	93,609	1913	25,288
1908	27,345	1914	20,060
Total ...	749,068	Total ...	224,093
Mean ...	124,845	Mean ...	37,349

45. The death-rate was 1·02 against 1·29 in 1913 and 2·11, the mean of previous five years. Only two Collectorates, West Khándesh and Upper Sind Frontier, failed to report deaths. In several Collectorates—Sholápur, Ratnágiri, Kánara, Broach, Kaira, Panch Maháls, Nawábshah, Lárkána and Sukkur the disease was not epidemic, only a few deaths being reported from each. The

disease showed a tendency to spread in Thána, Ahmednagar, Ahmedabad, Hyderabad and Thar and Párkar, but the death rate in each case was under 1 per 1,000 and was almost limited in Ahmednagar, Hyderabad and Thar and Parkar to one town in each case. In the remaining Collectorates the disease was epidemic and high death rates were recorded in Belgaum (3·17), Bombay City (3·05), Dhárwár (3·01), Karáchi (2·09), Sátara (1·88), Poona (1·70), Bijápur (1·59), Surat (1·42) and Násik (1·23). These death rates are high, but with the exception of those for Poona and Surat show a marked reduction on the corresponding quinquennial mean. Taking figures for town circles, tálukas and Maháls it is seen that the disease was more widespread than in 1913, although the mortality was less; 189 out of 360 Registration Circles were affected against 166 in 1913 and 160 in 1912. 941 towns and villages reported deaths against 921 in 1913 and 1,492 in 1912. In some of the town circles a very severe epidemic was experienced and the following table shows the plague mortalities from these towns and from the tálukas in which they are situated.

District.	Town.	Death-rate from plague.	
		Town.	Táluka.
Násik	Igatpuri	37·11	2·88
Belgaum	Nipáni	36·28	3·63
East Khándesh	Nasirabad	23·40	·97
Dhárwár	Navalgund	21·86	6·11
Poona	Lonavla	17·89	9·81
Thar and Párkar	Mirpurkhás	15·03	1·17
Bijápur	Ilkal	11·92	2·64
Surat	Ránder	11·88	·39
Kolába	Alibág	11·02	4·79
Sátára	Ashta	10·27	4·78
Surat	Bulsár	9·46	2·30

46. The progress of the disease in the epidemic areas is of great interest, and for convenience of description a short account is given for each district. The year is divisible roughly into 3 periods:—

The early months during which the epidemic conditions of the previous year is continued:

The hot weather months, the period of persistence of infection in a few centres:

And the latter half of the year, the period of establishment of the fresh epidemic.

Belgaum District.—In January the disease was reported from all tálukas and gradually died down: the infection however persisted in Belgaum Town and in Kambargi of Belgaum táluka: in Topinhatti of Khánápur táluka: in Sankeshwar and Khánápur of Hukeri táluka: in Nipani and Nandi of Chikodi táluka. During the fresh epidemic during the latter half of the year the disease was confined to 59 villages, of which 17 are in Chikodi táluka, 12 in Hukeri táluka and 22 in Belgaum and Khánápur tálukas. Parasgad, Gokak Sampgaon tálukas and Murgod Mahál practically escaped.

Dhárwár District.—In January infection was widespread, deaths were reported from 12 talukas: the disease rapidly died down until in June it persisted in only 3 centres—Dhárwár town, Nulgund in Gadag táluka, and Ganpihatti in Kalghátgi táluka. In the epidemic season 23 villages were attacked in these and neighbouring tálukas.

In July a severe epidemic broke out in 4 villages—Yamnigaon, Kedur and Ankalti of Kod táluka and Marankalli of Hangal táluka. The history of plague in the epidemic season is very largely the progress of the disease in these tálukas and the neighbouring tálukas of Ránebennur and Bankápur. In Kod 18 villages, in Ránebennur 18, in Hangal 6 and in Bankápur 4 were infected.

Bijápur District.—In January Sindgi, Bádámi, Bijápur, Bilgi, Bágevádi and Hungund tálukas were infected, and the disease rapidly died down. The village of Sona in Bilgi táluka was infected late, and the infection may have persisted for the epidemic broke out with virulence in September and October. In the epidemic season plague was reported from 17 villages; of these 6 were in Bilgi táluka, 7 in Hungund, 3 in Muddebihál and 1 in Bijápur.

Kánara District.—The disease as usual was limited to Sirsi táluka and Mundgod Peta, both rural circles being on the border of Dhárwár District.

Poona District.—In January the disease was confined to Haveli and Mawal tálukas and to Mulshi Peta. In Poona City the disease persisted throughout the year and epidemic conditions were re-established in September. In March, Lonavla of the Máwal táluka was infected and the epidemic continued till October. Out of 63 villages infected in the epidemic season, 36 were villages in Máwal táluka.

Sátára District.—In January the disease was reported from Sátára, Wái, Walwa, Koregaon, Tásgaon, Jávli and Khatáv tálukas and Shirála Peta. It died down very rapidly, but persisted in Akalkop of Tásgaon táluka and Koregoan of Koregaon táluka, both of which were infected late in the previous epidemic. In the epidemic season 21 villages in Koregaon táluka were infected and 8 in the neighbouring táluka of Khatáv. In Tásgoan táluka 9 villages were infected and 6 in the neighbouring táluka and peta of Wálwa and Shirála: in this way 44 of the 52 villages infected during the epidemic season in the latter half of the year are accounted for.

Násik District.—In January there was no plague and the epidemic in the latter half of the year was caused by a fresh importation of infection into Igatpuri, a town on the main railway line. 44 villages in the district were implicated in the epidemic and 23 were in Igatpuri táluka.

Ahmednagar District.—In January there was a mild epidemic in the city: this died out completely. There was a fresh importation of infection in November and December.

Sholápur District.—In January the whole district was free of infection: in December infection was imported into the Sholápur City.

Sind.—In January Karáchi City and Cantonment were infected and the epidemic was fairly serious. The disease was reported also from 6 towns in the táluka.

In February the infection was carried to Mirpur Khás and to Hyderabad: in Mirpur Khás the epidemic was very severe in March and eight villages in the táluka were infected: in Hyderabad the disease was not so acute, and infection probably persisted in spite of no death being reported during June, July and August. In the last four months of the year the epidemic was very severe and was probably of great import in the re-infection of Sind during the early months of 1915. The above facts appear to emphasise the local dissemination of plague from certain infected centres and to confirm Major Kunhardt's theory of the importance of the persistence of infection in certain towns and villages infected late in the previous epidemic.

47. Sixteen temporary Assistant Surgeons were engaged in inoculation in addition to private medical practitioners and Medical Officers in charge of Civil Hospitals and Dispensaries.

Inoculation.

The total number of persons inoculated during the year was 62,497 compared with 175,456 during the previous year: only 435 inoculations were reported from the Native States. Of the total number of inoculations 29,679 were performed by the special staff, 9,932 by Medical Officers in charge of Civil Hospitals and Dispensaries, 5,028 in jails, and 4,560 by private medical practitioners. The remainder were done in Bombay City, by Health Officers of large towns and by other agencies in Sátára District.

The total cost of the special staff came to Rs. 29,196, so the actual cost of each inoculation performed by them was Re. 0-15-8.

By districts the numbers of operations were 16,670 in Dhárwár, 12,269 in Poona, 7,437 in Belgaum, 7,423 in Bijápur, 4,022 in Sátára, 1,984 in Hyderabad

(Sind), 1,145 in Thána, 1,037 in Surat, 788 in Thar and Párkar (Sind), 743 in Násik, 128 in Kánara, 47 in Sholápur, 8 in Ahmedabad and 6 in Kolába.

In the chief plague-infected towns the numbers of inoculations performed were Poona City 6,124, Bombay City 4,622, Karáchi City 3,733, Kirkee 2,576, Mahábleshwar 1,888, Poona Cantonment 1,407, Dhárwár Prison 863, Bijápur Prison 278.

48. Ninety-two persons who had been inoculated were attacked by plague of whom 40 died, in 1913 the corresponding figures were 344 and 113. Detailed information is given in the table:—

District.	No. of inoculation.	Total plague deaths.	Attacks among inoculated.	Deaths among inoculated.
Dhárwár	16,670	3,090	41	18
Belgaum	7,437	2,988	27	10
Poona	12,269	1,810	9	5
Surat	1,037	928	7	2
Sátára	4,022	2,033	5	4
Bijápur	7,423	743	2	1
Hyderabad	1,984	302	1	...

In many cases the date of attack given is considerably later than the onset of symptoms, so it is not easy to give the exact period intervening between inoculation and attack; it seems probable from the returns that 34 out of the 92 attacks among the inoculated occurred within 7 to 10 days of inoculation and the case mortality was exactly 50 per cent.

49. In Sátára temporary Assistant Surgeon R. G. Thakár organised in accordance with the orders of the Collector a rat-campaign for Sátára Town; the Cantonment and three neighbouring villages were included in the operation.

Attention was paid mainly to trapping. During the period of campaign 31,413 rats were destroyed, practically twice the number of the human population. As there are less than 4,000 inhabited houses, the average number of rats destroyed per house came to nearly 8. Very few poison baits were laid. As usual, rats were more easily caught in the neighbourhood of grocers' shops and grain stores.

The total expense of the operations including the pay of the staff came to Rs. 3,637-5-2 or less than Rs. 1 (one) per inhabited house. The immunity from plague enjoyed by the people of Sátára may be a coincidence, so the continuation of the campaign is very desirable.

In Belgaum District ratting operations were attempted but commenced late and no appreciable result was obtained; they will be continued during 1915.

Major Kunhardt, I. M. S., working under the auspices of the Indian Research Fund Association, carried out experiments in preventive measures in the districts of Poona, Sátára, Sholápur and Ahmednagar: the effect of these operations should be evident in the plague season of 1915-16.

In Sind Major Murphy, I. M. S., paid attention to the epidemic in Mirpur Khás and Hyderabad.

Perhaps the most universally employed preventive measure is evacuation, and if properly controlled the effect on the incidence of plague would be very marked. As carried out at present it is probably an important factor in spreading the disease: it is known that the infective agent is carried commonly in clothes and bedding, so, it is not surprising that the disease follows the course of emigrants from infected centres. All inhabitants of towns and villages should be instructed in the danger of admitting the friend or stranger from an infected village and in the method of disinfecting clothes by sun light described by the Director, Bombay Bacteriological Laboratory.

Dysentery and Diarrhœa.

Deaths from dysentery and diarrhœa.

50. Forty-two thousand nine hundred and sixty-one deaths, of which 22,563 were males and 20,398 females, were ascribed to these causes as compared with 34,021 in 1913 and 47,747 the mean of previous ten years.

The number of deaths from dysentery and diarrhœa since 1903 is given below :—

Year.	Number of deaths from dysentery and diarrhœa.	Year.	Number of deaths from dysentery and diarrhœa.
1903	55,443	1909	35,039
1904	61,470	1910	46,643
1905	55,488	1911	31,549
1906	61,736	1912	57,039
1907	53,708	1913	34,021
1908	40,781	1914	42,961
Total ...	328,626	Total ...	247,252
Mean ...	54,771	Mean ...	41,209

The death-rate for the Presidency amounted to 2·19 against 1·74 in the preceding year and 2·14 the quinquennial mean. The increase in this mortality was very general.

51. The investigation into the causes underlying diarrhœal diseases in Poona was continued during the year under Captain Keyworth, I. M. S., and by Captain Morison, I. M. S., after the return of the former to military duty.

Diarrhœal diseases are very prevalent during the monsoon months and it is expected that this investigation will throw some light on the relation between the two phenomena.

52. In Appendix III a table is given showing the effect on the death-rate by the introduction of a piped water-supply : it will be noticed that the mean death-rate (excluding plague) for the past quinquennial is greater than that for the five-year period preceding the introduction of a piped supply for five towns—Bombay, Ahmedabad, Bándra, Panvel and Hubli ; while the reduction in four others (Dhulia, Karáchi, Sukkur and Jalgaon) is very slight. There are several factors which tend to mask the benefit of a water-supply, but one is the contamination of the new source of water.

53. The following table shows the cholera and dysentery mean death-rates for ten-yearly periods before and after the introduction of piped supplies for four towns :—

Town.	Before supply.		After supply.	
	Cholera.	Dysentery.	Cholera.	Dysentery.
Dhulia...	2·4	3·9	1·8	6·9
Ahmedabad	0·7	0·7	0·8	2·01
Hubli	0·9	1·6	0·6	3·1
Karáchi	1·7	2·1	2·3	2·8

It cannot be said that the death-rate for dysentery and diarrhœa—water borne diseases—has shown any improvement since the introduction of a piped supply ; it cannot be definitely stated that the increase in the mortality is due to the water, but as the sources of water are in all cases open to contamination, suspicion must rest on the water. A great deal of money has been and is being spent on water-supplies : owing to the gross contamination of the soil in India facilities for the regular bacteriological and chemical analyses of water samples, both before and after completion of the project, are urgently required.

Injuries.

Deaths from injuries.

54. Seven thousand six hundred and seventy deaths were recorded of which 4,291 were among males and 3,379 among females. The number of deaths in 1913 was 7,711 and the mean of the preceding ten years was 6,991.

The number of deaths registered annually as due to injuries since 1903 is shown below :—

Year.	Number of deaths from injuries.	Year.	Number of deaths from injuries.
1903	6,693	1909	7,029
1904	6,333	1910	6,885
1905	6,586	1911	7,452
1906	6,830	1912	7,175
1907	6,799	1913	7,711
1908	7,109	1914	7,670
Total ...	40,350	Total ...	43,922
Mean ...	6,725	Mean ...	7,320

Deaths from injuries in 1914 and 1913.

55. Deaths by sexes are arranged under the various heads and compared with those in 1913 in the following table :—

Causes.	1914.			1913.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,304	1,744	3,048	1,372	1,802	3,174
Poisoning	108	68	176	126	64	190
Hanging	124	84	208	134	68	202
Wounding	780	352	1,132	687	358	1,045
Wild beasts	24	7	31	40	12	52
Snake-bite	1,008	527	1,535	868	516	1,384
Rabies	122	60	182	90	38	128
Railway accidents	65	19	84	88	17	105
Other causes	756	518	1,274	885	546	1,431
Total ...	4,291	3,379	7,670	4,290	3,421	7,711

Deaths from snake-bite.

56. There were 1,535 deaths due to bites by snakes against 1,384 in 1913. The greatest number of deaths occurred in Ratnágiri (225), Thána (139), Lárkhána (108), Ahmedabad (108), Thar and Párkar (98) and Sátára (83).

There is always difficulty in identifying the species of snake responsible for the death, and no information is available as to the number of persons bitten who have recovered. In 125 instances the snake was identified as a cobra, and death resulted in the majority of cases in from ½ hour to 15 hours. In Gujarát 135 deaths were ascribed to the bite of the "black serpent," which the Deputy Sanitary Commissioner considers may also be a cobra or possibly a krait : death occurred in between 12 and 24 hours.

In Sind the *echis carinata* caused 176 deaths, and the interval between the bite and death varied between 3 hours and 12 days. This snake is very commonly found in Ratnágiri and is probably responsible for a large number of the deaths there, but the knowledge of the species of snakes in that district is not advanced enough for any attempt at identification. The only hope for reducing the mortality from snake-bite lies in the protection of the individual from the bite, and this is a matter of an efficient covering for the feet and ankles. There is no treatment devised at present which, in the hands of the villagers, has the smallest chance of success.

Deaths from rabies.

57. One hundred and eighty-two deaths were reported from rabies: The highest number (26) was reported from the district of Sátára while in Sind five deaths only were registered. Among towns the highest number (14) was returned from Bombay City.

Suicidal deaths.

58. There were 531 suicidal deaths, 260 males and 271 females, as against 582 (305 males and 277 females) in 1913. As usual, drowning or hanging was selected as the mode of death in the majority of instances.

Respiratory Diseases.

Deaths from respiratory diseases.

59. Sixty-five thousand nine hundred and forty-one deaths (34,794 males and 31,147 females) were registered as compared with 59,418 in 1913 and a decennial mean of 58,238.

The annual variation in the mortality since 1903 is given in the following table :—

Year.	Number of deaths from respiratory diseases.	Year.	Number of deaths from respiratory diseases.
1903	59,349	1909	53,433
1904	59,579	1910	59,880
1905	54,537	1911	51,470
1906	60,615	1912	70,712
1907	58,068	1913	59,418
1908	54,671	1914	65,941
Total ...	346,819	Total ...	360,854
Mean ...	57,803	Mean ...	60,142

The death-rate per 1,000 of population was 3·37 against 3·03 in 1913 and 3·08 the mean of the previous five years.

60. In rural areas the death-rate was 2·64 against one of 7·12 for urban areas. The highest death-rates for urban areas were recorded in Kaira (18·23), Mirpur Khás (12·77), Deoláli Camp (12·59), Broach (12·09), Jambusar (11·90), Kapadvanj (11·58), Umreth (10·99), Borsad (10·79), Admedabad (10·65), Bombay City (10·52), Nadiád (10·31), Bulsár (9·64) and Ránder (9·08).

Respiratory diseases assume importance owing to the prevalence of phthisis; this disease is very well known in the Presidency, and is frequently given as a cause of death in the death registers. Dr. Munsiff has taken out the information for Gujarát for 10 months in the year, and during these months 1,349 deaths were recorded in urban areas, and 1,134 in rural areas. The death-rate for urban areas is therefore 2·3 per mille, and for rural areas 0·4—a very striking difference which cannot all be attributed to defective registration and ignorance in rural areas. These rates are for 10 months only.

The death-rates from phthisis (for 10 months) in the principal towns were :—

Ahmedabad (3·2), Viramgaon (2·6), Surat (2·6), Nadiád (2·4), Kaira (2·2), Dhandhuka (2·1), Jambusar (1·8), Ránder (1·8), Broach (1·7), Bulsár (1·6), Kapadvanj (1·6) and Dákore (1·3).

These figures cannot be taken as representing the maximum incidence of the disease, but they are valuable positive evidence and indicate the necessity for its control. The great majority of deaths were recorded in persons between 20 and 40 years of age.

For the Southern Registration District (districts of Belgaum, Dhárwár, Bijápur and Kánara) the figures are for the complete year. The disease is again very largely urban as the following table shows :—

	Urban.	Rural.		Urban.	Rural.
Belgaum ...	2·08	0·55	Bijápur ...	0·64	0·27
Dhárwár ...	1·33	0·42	Kánara ...	0·66	0·31

The urban death-rates vary, but high rates are returned from Navalgund (4·54), Gokák (3·55), Gadag (2·17), Nipáni (2·13), Ránebennur (2·01), Dhárwár (1·87), Belgaum (1·84) and Athni (1·81).

The death-rate for Hubli City is only 0·16, but must be accepted with reserve. A few of the death-rates for rural areas are noteworthy—Hukeri (1·14), Navalgund (0·93), Chikodi (0·78), Belgaum (0·75) and Nargand (0·73).

Persons between 20 and 30 years of age suffered most severely, while the season of maximum mortality was the third quarter of the year.

It has been said with accuracy that measures against tuberculosis begin with the house and end with the house. The conditions of overcrowding and lack of ventilation under which the people live, and which undoubtedly contribute largely to the prevalence of phthisis may well form subjects for the attention of the Sanitary Associations which are being formed all over the country.

Other Causes.

Deaths from other causes.

61. One hundred and fifty-nine thousand seven hundred and twenty (82,365 males and 77,355 females) deaths were registered as compared with 133,815 in 1913 and the decennial mean 137,385.

The annual number of deaths registered since 1903 is as follows:—

Year.	Number of deaths from other causes.	Year.	Number of deaths from other causes.
1903	144,510	1909	128,495
1904	144,800	1910	149,735
1905	132,666	1911	130,871
1906	142,478	1912	162,143
1907	124,575	1913	133,815
1908	124,275	1914	159,720
Total ...	813,304	Total ...	864,779
Mean ...	135,551	Mean ...	144,130

Deaths by Registration Districts and Collectorates.

62. The death-rate for the Presidency was 8·15 against 6·83 in 1913.

The percentage of deaths thus recorded to total deaths for the Presidency was 27·65 with percentages varying from 41·09 in the Southern Registration District to 8·68 in Sind. The percentage may be taken as an index of the endeavour of the village officers to arrive at a diagnosis of the disease. Many diseases are included under this head of which perhaps the most important is measles. The value of the diagnosis by village officers is generally doubted, but in this particular disease the age incidence in this Presidency according to the village officers coincides with that given by the Registrar-General for the same disease in England. The death-rates for measles at the different age periods are given below:—

District.	0—5.	5—10.	10 upwards.
Belgaum	2·49	0·38	0·01
Dhárwár	3·04	0·44	0·26
Bijápur	2·98	0·51	0·03

Of the total number of deaths from measles 85 per cent. occurred in children under 5, and as in the three districts named 1,291 deaths were recorded, this disease is for children a very serious one. It is a disease of the 1st and 2nd quarters, although in Bijápur District the mortality was heaviest in the 3rd quarter.

Every rural circle in Belgaum, Dhárwár and Bijápur Districts reported deaths, and the following rural death-rates indicate the severity of the disease:—Muddebihál (1·37), Karajgi (0·93), Mundargi (0·90), Murgod (0·85), Bágalkot (0·77), Bankápur (0·74), Parasgad (0·69), Hukeri (0·67) and Bágewádi (0·63).

Ten out of the thirteen town circles reported deaths, the highest death-rates being Ránebennur (1·19), Nipáni (1·02), Dhárwár (0·82) and Hubli (0·85).

In Gujarát the disease is not so well known: 396 deaths were recorded, and of these 295 were in urban areas. Ahmedabad, Surat and Viramgaon towns registered 257 deaths between them, giving death-rates of 0·5, 0·9 and 1·9, respectively: 82 per cent. of the deaths occurred in children under 5. The disease was chiefly prevalent in April and May.

SECTIONS VII and VIII.—No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

Municipal work.

63. During the financial year 1913-1914 the total income of the 157 city and town municipalities in the mofussil amounted to Rs. 1,25,73,669 of which a sum of Rs. 56,61,720 was expended on "public health and convenience," a reduction of Rs. 6,37,944 in the expenditure under this head as compared with the previous financial year. The actual expenditure on public health requirements, such as water-supply, drainage and conservancy amounted to Rs. 34,25,979 as compared with Rs. 38,61,355 in 1913. The details of improvements in water-supplies and drainage are given in Appendix 1. It will be noted that 5 new projects received the sanction of Government and 36 were under either consideration or construction. Calculated on the census population (2,369,376) the incidence of taxation per head of population has increased from Rs. 2-5-5 to Rs. 2-8-3 and that of income has increased from Rs. 3-11-9 to Rs. 4-3-6. The individual rate of contribution to the municipal income varied as usual within wide limits from annas 7·7 in Yankanmardi in the Belgaum District to Rs. 10·11 in Karáchi.

Health Officers and Sanitary Inspectors.

First Class Health Officers are employed in the Municipalities of Karáchi, Ahmedabad, Surat and Poona. A Second Class Health Officer has been appointed by the Municipality of Broach. Qualified Sanitary Inspectors have been appointed at Násik (1), Hubli (1), Gadag-Bettigeri (1), Bijápur (1), Ahmedabad (3), Surat (4), Nadiád (1), Pandharpur (1), Dhulia (1) and Poona (3).

District and Táluka Local Boards.

64. The creation of the Nawábsháh District led to an increase in the number of District Local Boards from 25 to 26.

The number of Táluka Local Boards was increased to 216 by the division into two of the Daskroi Táluka of Ahmedabad District.

The total population under the Local Boards was 18,062,041.

The income during the year ending 31st March 1914 was Rs. 83,39,701 against an expenditure of Rs. 78,48,589. The sum of Rs. 3,73,556—less than 5 per cent. of the income—was spent on water-supplies, drainage and other sanitary improvements. The incidence of income per head of population was 7 annas 7 pies, and of taxation 3 annas and 2 pies; in both instances a slight increase over the figures for the previous financial year.

Grants for improvement of village water-supplies.

65. Under Government Resolution, General Department, No. 3478 of 2nd May 1914, a grant of Rs. 62,000 was made for the improvements of village water-supply, and it was distributed as follows:—

	Rs.		Rs.
Central Division	... 20,000	Southern Division	... 10,000
Northern Division	... 20,000	Sind Division	... 12,000

The reports of Deputy Sanitary Commissioners on the water-supply of different villages, in which stress is laid on the absence of a sufficient supply for any section of the community, or the association of a disease, such as guineaworm, with a particular water-supply, should prove very useful in the utilisation of similar grants. Guineaworm is very prevalent in certain villages and causes a great amount of suffering. The remedy lies in the improvement of wells and tanks so that people cannot enter the water at the time of drawing water.

Under Government Resolution, General Department, No. 3842 of 15th May 1914, a special grant of Rs. 15,000 was made to deal with scarcity of water in 6 out of 7 tálukas of the Sholápur District. By the end of December Rs. 8,000 had been expended. Under Government Resolution, General Department, No. 4265 of 29th May 1914, a special grant of Rs. 3,000 was authorised

for the improvement of sources of water in West Khándesh. Up to the end of December Rs. 200 had been spent.

Government of India grant of 7 lákhs.

66. Under Government Resolution No. 3666 of 8th May 1914, the grant of Rs. 7 lákhs made by the Government of India was distributed among the District Local Boards of the Presidency and Sind. The sums are incorporated in the general revenues and are used to improve communications, in the repair and construction of wells and tanks, and to aid in the maintenance of medical and veterinary dispensaries. The distribution was as below:—

	Rs.		Rs.
Sind Division	1,54,000	Central Division ...	2,08,000
Northern Division ...	1,82,000	Southern Division ...	1,56,000

PROVINCE OF SIND.

Karáchi District.—The grant of Rs. 25,600 was spent in the completion of 16 works mainly concerned in the improvement of communications; 3 new musáfirkhanas and 1 dharamshala were erected.

Hyderabad District.—Rs. 16,390 were expended out of the grant of Rs. 20,000 in improvement of communications.

Sukkur District.—The grant of Rs. 20,000 was completely expended in 11 works, 10 of which were concerned in improvement of communications, and 1 in alterations to a veterinary dispensary.

Lárkhána District.—The grant of Rs. 28,000 was expended in the erection of two dispensaries—one medical and one veterinary—and of two musáfirkhanas.

Nawábsháh District.—Rs. 16,767 were spent out of the grant of Rs. 20,000 on 52 small works the majority of which was connected with improvement to communications. Grants for the construction of two wells were made, and one musáfirkhana was built.

Thar and Párkar District.—The grant of Rs. 30,000 was expended entirely on 8 works:—2 mortuaries for dispensaries were built, 1 veterinary dispensary constructed, 2 dharamsháls built, one extended and repaired, 15 bridges were built, and an important communication road raised.

Upper Sind Frontier District.—Rs. 11,959 were expended out of a grant of Rs. 14,000 on 30 works comprising those for improvements to communications, erection and improvement of dispensaries, cleaning of tanks and repairs to wells.

NORTHERN DIVISION.

Ahmedabad District.—Out of the grant of Rs. 35,000 a sum of Rs. 13,687 was spent in the completion of 6 works, 3 of which were concerned in the improvement of communications, and 2 in repairs to travellers' bungalow: a grant of Rs. 600 was made to the Lord Harris Travelling Dispensary.

Kaira District.—The grant of Rs. 40,000 was spent in 4 works in connection with communication, improvement to water-supply, village sanitation and dispensaries.

Panch Mahál District.—The grant of Rs. 30,000 was distributed for improvement to roads and bridges.

Broach District.—A sum of Rs. 9,170 out of the grant of Rs. 27,000 was spent in 4 works of communications and 3 dispensary works.

Surat District.—The grant of Rs. 25,000 was distributed for two works of communication, for one veterinary dispensary, repairs to suspension bridge, and work in connection with a dispensary at Chikhli.

Thána District.—The grant of Rs. 25,000 was credited to the District Local Board's general account for expenditure on items other than educational.

CENTRAL DIVISION.

East Khándesh District.—Out of the grant of Rs. 41,000 a sum of Rs. 19,942 was spent on original works and works of special improvement which comprised (1) improvement to dispensaries, (2) constructing new roads,

(3) constructing pavements, (4) building dhakas, (5) constructing new dharamshálas and (6) plantation of road-side trees.

West Khándesh District.—Rs. 2,101-8-0 out of the grant of Rs. 29,200 were spent on 33 works, out of which 9 were carried out by Public works agency and 24 by District Local Board agency—17 works connected with communications, 13 with water-supply from wells, 2 for roofing of dharamshalas and 1 pavement to the nala.

Násik District.—Out of the grant of Rs. 29,000 a sum of Rs. 3,446 was spent on works in connection with (1) additions and alterations to dispensary buildings, (2) construction of new roads, (3) repairs to old roads, (4) construction of a well and (5) plantation of road-side trees.

Ahmednagar District.—Out of the grant of Rs. 29,200 a sum of Rs. 14,835 was expended on works mainly concerned with the improvement of communications.

Poona District.—Rs. 9,364 out of the grant of Rs. 26,700 were spent on 13 works, 7 of which were carried out by the Public Works Department and 6 were executed by the Local Board agency. The works comprised road repairs, construction of isolation ward in connection with the veterinary dispensary, planting and preserving trees on the roads, construction of new latrines and sweepers' quarters at dispensaries.

Sátára District.—Out of the grant of Rs. 30,000 a sum of Rs. 17,637 was spent on 6 works in connection with communications.

Sholápur District.—Out of the grant of Rs. 22,800 a sum of Rs. 14,071 was spent on works of communications, while Rs. 1,959 were spent for purchasing a new ferry boat.

Southern Division.

Belgaum District.—The grant of Rs. 30,000 was fully utilised in carrying out improvements of communications.

Bijápur District.—The grant of Rs. 29,000 was expended on completing 5 communication works, additions and alterations to the Sub-Assistant Surgeon's quarters and certain improvements to water-supplies.

Dhárwár District.—The grant of Rs. 38,000 was fully expended on 4 kinds of works, namely, communications, maintenance of veterinary dispensaries and water-supply of the Táluka Local Boards.

Kánara District.—The grant of Rs. 15,000 was completely utilised on objects other than education, such as improvement of communications, water-supply and village sanitation and proper equipment and maintenance of dispensaries.

Kolába District.—Out of the grant of Rs. 19,000 a sum of Rs. 864 was spent on two works of communications and one of surveying water works project.

Ratnágiri District.—The grant of Rs. 25,000 was fully expended on 11 works comprising construction of roads, repairs to buildings and roads, water works, veterinary dispensaries, medical dispensaries and accommodation for travellers.

Special allotment for sanitary improvements.

Under Government Resolution, General Department, No. 5013 of 8th July 1913, an allotment of 21½ lakhs was made for urban sanitary improvements. The following details as regards progress have been received from Collectors of Districts.

Kolába.—The grant of Rs. 7,000 for the opening up of a congested area in Alibág was expended fully.

Ahmednagar.—Up to the end of 1914, Rs. 2,35,333 had been expended on the water-supply scheme. The total grant sanctioned is Rs. 3,20,000.

Poona.—Progress in paving the Manik nulla was made. Rs. 21,179 were expended out of the total grant, Rs. 28,000.

Sholápur.—A grant of Rs. 15,000 was expended in the development of two survey numbers for building purposes.

Bijápur.—The grant of Rs. 5,300 in aid of the construction of surface gutters at Bágalkot was expended fully. The municipality contributed Rs. 3,481 towards the total cost.

Broach.—Out of Rs. 90,000 sanctioned for the Boharvada scheme Rs. 50,712 were spent on the acquisition of 35 houses and 5 open plots. When all claims have been settled, the balance will be devoted to the improvement of other insanitary areas.

67. Out of discretionary grants placed at their disposal the Commissioners of Divisions allocated the following sums to sanitary works:—

By Commissioner, Northern Division.—Rs. 1,000 for playing field for schools; Rs. 300 to home for infirm at Surat; Rs. 524 in aid of different Sanitary Committees.

By Commissioner, Southern Division.—Rs. 2,163 as grants to Sanitary Committees; Rs. 275 for the improvement of wells; Rs. 1,151 for communications; Rs. 250 in aid of a milch cattle show.

District Sanitary Associations.

68. The Dhárwár Sanitary Association continues to do excellent work, and during the year employed an Assistant Surgeon to lecture in the towns and villages.

Associations have been started in Belgaum, Bijápur and Broach Districts.

It is not very generally realised that the main cause of sickness and death is the accumulation of waste matter in the neighbourhood of houses. Improvement in this respect will probably be slow, and the constant effort of the members of these Associations is required to pursuade the people of the danger underlying faulty removal of waste matter.

Overcrowding in villages.

69. The relief of overcrowding in villages is beset with many difficulties and little has yet been done.

Notified Areas.

70. The number of Notified Areas was 20, exclusive of six in the Thána District created to exercise control over building operations.

The following statement shows the income and expenditure of these Notified Areas:—

Districts.	Nos.	Names of villages and towns.	Income including opening balance.	Expenditure.	Balance.	Remarks.
			Rs. a. p.	Rs. a. p.	Rs. a. p.	
Thána	1	Andheri	14,585 0 0	11,466 0 0	3,119 0 0	
	2	Vila-Parle	7,424 0 0	2,510 0 0	4,914 0 0	
	3	Santa Cruz	10,994 0 0	5,781 0 0	5,213 0 0	
	4	Ghatkopar and Kirol ...	22,333 0 0	5,948 0 0	16,385 0 0	
	5	Málád	6,643 0 0	4,347 0 0	2,293 0 0	
	6	Borivli	6,770 0 0	5,785 0 0	985 0 0	
	7	Goregaon	These levy no taxes.			
	8	Kandivli				
	9	Mulund				
	10	Vikhroli				
	11	Bhándup				
	12	Bhayandar				
Broach	1	Pálej	3,028 7 7	1,605 9 0	1,422 14 7	
East Khándesh ...	1	Chálisgaon	17,849 7 6	14,894 9 2	2,954 14 4	
	2	Páchora	7,146 10 10	6,188 6 3	958 4 7	
Násik	1	Manmád	Not available.			
Sholápur	1	Mádha	3,338 5 9	2,052 6 4	1,285 15 5	
	2	Kurduwadi	2,164 2 3	678 0 7	1,486 1 8	
Ratnágiri	1	Dápoli	4,165 8 7	1,799 1 11	2,366 6 8	
Belgaum	1	Khánápur	1,909 6 7	1,094 2 4	815 4 3	
	2	Bail-Hongal	7,278 5 3	4,680 3 1	2,598 2 2	
	3	Chikodi	853 7 10	834 7 5	19 0 5	
Dhárwár	1	Hangal	1,525 5 2	715 11 2	809 10 0	
Bijápur	1	Muddebihál	1,804 14 9	346 14 11	1,457 15 10	
	2	Hungund	1,919 13 6	1,317 4 3	602 9 3	
Kolába	1	Karjat	2,588 12 4	1,192 6 5	1,396 5 11	

The Notified Area Committees in Sálsette are doing good work; the incidence per head of population of income and taxation is respectively Rs. 1-15-10 and Rs. 1-11-1. The water-supply at Andheri has been placed under the control of the Executive Engineer, Sálsette Building Sites, and tanks are being placed at Andheri and Santa Cruz to facilitate the watering of roads.

The Collector of Broach reports that much improvement has been effected by the Committee of the Pálej Notified Area.

These Committees will in time all do good work; at present some do not make full use of their income: for instance, Kurduwadi Notified Area Committee in Sholápur District collected during the year Rs. 2,164, and expended only Rs. 678: Kurduwadi is an important railway junction for Pandharpur. Muddebihál Notified Area in Bijápur District collected Rs. 1,736 and spent only Rs. 347.

71. There are two Sanitary Boards, one at Chikhli Samroli in Surat District and the other for three villages of Kondli, Balikop and Hosur in Kánara District. The income of the former Board was Rs. 788 and the expenditure Rs. 787.

Village Sanitary Committees.

72. There were in all 336 towns and villages in which Sanitary Committees existed; below is a short account of their distribution and the nature of the work accomplished:—

In the Southern Division comprising the districts of Belgaum, Dhárwár, Bijápur, Kolába, Ratnágiri and Kanara, 51 Sanitary Committees worked during the year; of these 10 were newly established—4 in Belgaum District (Arlikatti, Yargatti, Hosur and Inchal) and 6 in Dhárwár District (Shiggaon, Hulgur, Karajgi, Devihosur, Hosantt and Guttal).

Kolába District.—Nine Sanitary Committees.—The total popular contributions during the year came to Rs. 985 and grants from Provincial and Local Funds to Rs. 805. The main expenditure was on pay of sweepers and road repairs: the funds obviously do not permit large sanitary works. The Nizampur Sanitary Committee spent Rs. 250 on improvement of water-supply. The Sanitary Committee at Chanur is moribund.

Dhárwár District.—The total receipts of the 20 Sanitary Committees was Rs. 8,923, and the expenditure Rs. 9,209. No information is available as to the proportion of income raised by popular contribution.

Belgaum District.—The total income and expenditure of the 14 Sanitary Committees came to Rs. 6,033 and Rs. 7,739 respectively.

Bijápur District.—The receipts of the 6 Sanitary Committees amounted to Rs. 4,329 and the expenditure to Rs. 3,092. The Collector reports that the Sanitary Committees at Managoli and Amingad have large balances at their disposal and their attention is being drawn to the advisability of utilising them on works during the current year.

Ratnágiri District.—Two Sanitary Committees at Khed and Málwan. The receipts at Khed during the year came to Rs. 443, of which Rs. 184 were raised by popular contribution. The expenditure came to Rs. 609, and was divided between pay of sweepers and establishment, the cost of lighting and of upkeep of latrines. The Committee is composed of 7 members and held 7 meetings. The average attendance was 5·7. At Málwan the receipts came to Rs. 2,181 and the expenditure to Rs. 2,285. Pay of establishment and of sweepers came to Rs. 1,219 and Rs. 525 were spent on road construction.

In the Central Division in which are included the districts of Sátára, Poona, Sholápur, Ahmednagar, Násik and East and West Khándesh, 60 Sanitary Committees were working. Four new Committees were formed during the year at Manchar and Ghoda in the Poona District and at Ainpur and Shendurni in East Khándesh.

Sátára District.—The receipts of the 10 Committees during the year came to Rs. 3,553, of which Rs. 1,614 were raised by popular contribution. The expenditure and closing balances were Rs. 3,937 and Rs. 3,187 respectively.

Sholápur District.—Two Sanitary Committees, of which the receipts, expenditure and closing balances were Rs. 246, Rs. 475 and Rs. 508 respectively.

Poona District.—Four Committees.—The Collector writes that the Sanitary Committee at Dhond will be declared a notified area, and that it is hoped the sanitary condition will then improve. The members of the Bhigwan Committee take very little interest in its management. This is evident from the financial statement which shows that the receipts and expenditure during the year came to Rs. 75 and Rs. 52 respectively.

Ahmednagar District.—The total receipts of the 14 Sanitary Committees came to Rs. 9,181, of which Rs. 3,897 were raised by popular contribution. The expenditure was Rs. 9,256 and the closing balances amounted to Rs. 6,420. The chief items of expenditure were pay of establishment, sweepers, lighting, road repairs, and maintenance of latrines. Four of the Committees, at Shrigonda, Karjat, Mirajgaon and Kada did an appreciable amount of work in removing prickly-pear.

West Khándesh District.—Receipts of 9 Sanitary Committees, Rs. 7,633, of which the inhabitants contributed Rs. 2,791 : an additional sum of Rs. 981 was raised by fines and sale of street sweepings. Expenditure, mainly on salary of sweepers, the provision of lighting and road repairs, came to Rs. 6,666. The Collector writes that all are doing fairly good work and especially mentions the Committees at Nawápur, Pimpalner and Prakasha. "The Pimpalner Sanitary Committee has set a good example in the removal of prickly-pear".

East Khándesh Disirict.—The income including the opening balance of 10 Sanitary Committees, of which 2 were newly established, was Rs. 26,243. The expenditure chiefly on establishment charges, sweepers, lighting, repairs to roads, latrines and maintenance of dispensaries and dharamshalas came to Rs. 17,009.

In the Northern Division comprising the Districts of Thána, Ahmedabad, Surat, Broach, Kaira and Panch Maháls, 75 Sanitary Committees are established, of which two—at Arnola and Umergaon in Thána District—were formed during the year.

Ahmedabad District.—The receipts during the year of the 8 Sanitary Committees came to Rs. 5,321, of which Rs. 2,866 were raised by popular contribution. The expenditure was Rs. 4,993. Establishment charges came to Rs. 2,112 and the remainder was spent chiefly on lighting, road repairs and the supply of medicines.

Surat District.—The inhabitants of the 12 villages in which Sanitary Committees worked raised Rs. 4,911 towards total receipts during the year of Rs. 15,081. The expenditure, chiefly on establishment charges, lighting and removal of refuse, came to Rs. 10,515.

Broach District.—The receipts during the year of the 21 Sanitary Committees came to Rs. 11,955 towards which the inhabitants raised Rs. 4,650. The expenditure was Rs. 7,684 and closing balances Rs. 13,696. The Collector reports that the Committees are in the majority of instances doing good and useful work.

Kaira District.—The expenditure of the 17 Sanitary Committees came to Rs. 6,866 against receipts during the year of Rs. 9,689. The closing balances came to Rs. 13,022.

Thána District.—Three Sanitary Committees worked throughout the year and expended Rs. 1,785 out of receipts during the year of Rs. 2,250. Two newly formed Committees commenced to raise funds.

In Sind there are 150 Sanitary Committees. Three at Garhi Kairo, and Bhaladinabad in the Upper Sind Frontier, and Shahápur in the Nawábsháh District, were created during the year, while the Committees at Shahápur in the Nawábsháh District was disbanded on the creation of a municipality.

Karáchi District.—The receipts of the 28 Committees during the year came to Rs. 10,149 and the expenditure to Rs. 8,486. The closing balances were Rs. 6,935. The Collector writes "The Sanitary Committees generally attended to their duties of keeping the villages in a sanitary condition, of looking after the cleanliness of wells, etc., but no work worthy of special mention was carried out." The annual Government grant-in-aid was supplemented by an additional grant of Rs. 1,942.

Hyderabad District.—The receipts of the 21 Sanitary Committees came to Rs. 10,004 and the expenditure to Rs. 8,990.

Thar and Párkar District.—The receipts of the 22 Sanitary Committees during the year amounted to Rs. 7,172 and the expenditure to Rs. 9,069. The closing balances were Rs. 11,251. The Collector writes that "The finances have been judiciously managed, and that all the Sanitary Committees

are doing useful work in the way of maintaining the sanitation and lighting of their charges. Two of the Committees obtain a small income from the rents of markets and slaughter house, while the Committee at Dengan owing to an apprehension that plague was about to break out disinfected the whole village with an emulsion of kerosine oil and soap."

Upper Sind Frontier District.—The population of the 8 villages in which Sanitary Committees were established raised Rs. 1,779 towards total receipts during the year of Rs. 6,975. The expenditure, the chief items of which were conservancy, lighting and the maintenance of slaughter-houses, came to Rs. 5,207. The Mukhtiárkar and Sub-Assistant Surgeon are *ex-officio* members of 4 Sanitary Committees. The Collector writes that "The non-official members are reported to take a fairly intelligent interest in the work of the Committees, but without official incentive supplied by the Mukhtiárkar nothing would ever be done."

Lárkhána District.—Thirty-eight Sanitary Committees.—The receipts and expenditure during the year and the closing balances came to Rs. 12,514, Rs. 12,606 and Rs. 12,498 respectively. The Collector reports that the towns in which Sanitary Committees work are cleaner than others.

Nawábsháh District.—The receipts of the 18 Sanitary Committees came to Rs. 13,984 and the expenditure to Rs. 12,386.

The main object of the existence of Sanitary Committees is the maintenance of towns and villages in a cleanly condition. The funds at the disposal of the Committees are not large and the greater proportion must be swallowed up by the pay of establishment and of sweepers. There is very little therefore to keep up the interest of the members of the Committees, unless each is imbued with the importance of the work these Committees are called on to supervise. It is possible that the appalling calamity of plague has diverted the attention of the general public from the constant deadly menace from the accumulation of waste matter in the neighbourhood of dwellings. The health of the people and the general death rate exclusive of plague will show no appreciable improvement till this matter is taken up seriously; it is of vital importance therefore to maintain the interest of the members of the Sanitary Committees in the work they are carrying out, and to impress on them the danger of neglect and the reward in the saving of life from constant effort.

Sanitary surveys of towns and villages.

73. In this work the members of the Sanitary Department will continue to do what lies in their power. During the year 53 Sanitary surveys of towns and villages were completed, while notes were made in the Sanitary Inspection Books of 218 villages. There is evidence that these reports have been of value and the advice contained has been acted on in many instances. The completeness of the reports has, however, in many cases led to the idea that the advice of Sanitarians is utopian and impracticable. This is quite natural, for so much has to be done in the towns and villages that the recommendations are numerous and the executive faced with scanty funds feels itself powerless. Action is being taken departmentally to enhance the practical value of the reports, but it should be remembered that the reports are intended also to be used in educating and in arousing the general public to the necessity of sanitary cleanliness. This cannot be left to the members of the Sanitary Department, and officials visiting the towns and villages can impart knowledge to the inhabitants if they have beforehand acquainted themselves with the sanitary defects and their remedies embodied in these complete sanitary surveys.

Special work by members of the Sanitary Department.

74. In addition to these general sanitary surveys certain special work was carried out during the year.

Major Murphy, I.M.S., compiled a report on the distribution of malaria in Sind as evidenced by the splenic enlargement among children, paid considerable attention to the improvement of registration, and gave assistance to the Municipality of Mirpurkhás in the management of the severe plague epidemic.

Dr. Jamshyd Munsiff camped in Broach in connection with the cholera epidemic, completed malarial surveys of Ahmedabad City and of Dakor—a very important pilgrim centre—and addressed several municipalities on their sanitary duties.

Dr. Dalal toured in Chikodi District during the cholera epidemic, and his efforts undoubtedly prevented the spread and hastened the close of the epidemic.

Dr. D'Mello visited Pandharpur in connection with the cholera epidemic in April, worked very hard and with success in the prevention of the spread of cholera at and after the Ashadi Fair at Pandhapur in July, and visited Shirali peth in Sátára District to assist in the eradication of cholera from that locality.

Dr. Fisher at the Belgaum Vaccine Institute was untiring in his efforts to produce a potent vaccine and to devise a system through which the vaccine can maintain its potency during transit to each Vaccinator in the hot weather. The success of his efforts is reflected in the fact that a pure glycerinated vaccine can be sent to the warmest districts and there used with success if the careful instructions issued are obeyed.

Captain Morison, I.M.S., and Captain Keyworth, I.M.S., continued the investigation into the causes underlying epidemic diarrhœa in Poona. The result of this brilliant investigation will be of benefit to the whole of the Presidency, for it will emphasise the danger of indiscriminate fouling of the soil, which is in itself the chief cause of sickness and death in this country.

SECTION X.

75. The office of the Sanitary Commissioner has been held throughout the year by the writer of this report. An extensive tour was undertaken including visits to Sind and to Kánara in connection with the malaria surveys and to over 30 towns for various purposes generally the water-supply, but in some instances for plague, selection of sites for schools and dispensaries.

F. H. G. HUTCHINSON, M.B., C.M., D.P.H.,
Major, I.M.S.,
Sanitary Commissioner.

Poona, 25th June 1915.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE BOMBAY PRESIDENCY FOR THE YEAR 1914.

During the year under report one more Official Member was added to the Sanitary Board. The Board now consists of the following officers :—

The Commissioner, Central Division, as President, the Secretary to Government in the General Department and the Joint Secretary to Government in the Public Works Department, the Sanitary Commissioner, the Mechanical Engineer to Government, one Non-official Member the Hon'ble Dewan Bahadur K. R. Godbole and the Sanitary Engineer to Government as members. The Sanitary Engineer is also Secretary to the Board.

2. Two meetings were held during the year to consider amongst other matters the water-supply and drainage schemes. The grant of one lákh placed at the disposal of the Board during the year 1914-15 was distributed at their meeting held on 6th January 1915 as under :—

Sind	...	...	...	Rs. 20,000
Northern Division	...	...	...	„ 18,017
Central Division	...	...	...	„ 31,358
Southern Division	...	...	...	„ 30,625

3. The projects sanctioned by Government were as follows :—Sewerage of the town of Dhulia Rs. 4,00,000, Igatpuri water-supply, revised plans and estimates, Rs. 1,39,075, Drainage of Central Offices, Poona Rs. 17,261, Installation for experimental purposes of a Paterson Filter at the Poona, Cantonment Water-Supply Pumping Station, Rs. 15,114, the 2nd revised estimate for Hyderabad (Sind) water-supply Rs. 4,36,037.

4. Government were pleased to grant during the year a sum of Rs. 3,12,090 as grants-in-aid for sanitary works amongst the various municipalities in the Bombay Presidency, the principal grants being as follows :—Bársi water-supply, Rs. 86,500, Ahmedabad water-supply, Rs. 24,000, Development of Sálsette Rs. 40,000, Sholápur Town Improvements, Rs. 12,800, Násik water-supply scheme, Rs. 45,393.

5. The following water-supply works were either in progress or completed during the year and the expenditure during the year is given in each case :—

Southern Division.

Bijápur.—Masonry pillars under rising main and improvements to distribution system were completed Rs. 48,470. The water works were formally opened in February 1914.

Sangameshwar.—Replacing mains and distribution pipes, estimate Rs. 1,596, expenditure Rs. 90.

Pen.—Improvements, Rs. 251.

Roha-Ashtami.—Improvements Rs. 2,240.

Dhárwár.—Laying pipes in the Civil Hospital, Rs. 652.

Hubli.—Laying 3″ steel pipes and other necessary alterations, Rs. 10,000. This practically completes the 2nd stage of the project.

Alibág.—Improvements, Rs. 2,587.

Central Division.

Karád.—Tunnel work about 40 feet, pump well, settling tanks, filter bed, pure water tank and high level reservoir, etc., were constructed, Rs. 30,125.

Sátára Camp.—Improvements, Rs. 2,871.

Ahmednagar.—The earthen dam, outlet tower, waste weir and service reservoir were in part constructed and a portion of the gravitation main laid, Rs. 1,69,900.

Poona.—Installation of Goliath Boiler for supply of hot water to Government House, Ganeshkhind, Rs. 13,500.

A 3″ main and 10 W. I. tanks for supply of water to Central Offices building, Rs. 3,400.

Poona City.—Connection of 20″ main from settling tanks to city mains, etc., and distribution pipes, Rs. 2,45,135 which includes expenditure on drainage scheme.

Lonávla.—Dam and waste weir were under construction 6″ gravitation main laid to a length of 9,154 feet, Rs. 1,89,042.

Násik.—Special repairs and purchase of a 12″ Venturi Meter, Rs. 52,236.

Sholápur.—Improvements, Engine-house with chimney, suction well with its pipe connection, etc., Rs. 81,986.

Bársi.—Part construction of service reservoir, etc., Rs. 21,872.

Dhulia.—Waste weir excavation in hard rock, Rs. 214.

Northern Division.

Surat.—Provision of a meter testing tank and purchase of a Venturi Meter, Rs. 5,570.

Ahmedabad.—Raising the top of supply well No. 2, depressing the jack well of Engines B and C with other necessary improvements, construction of khalasis' quarters, improvements to distribution system, Rs. 26,056.

Tarapur.—Construction of a masonry tank and provision of an oil engine, etc., Rs. 3,391.

Khárághoda.—Pipe line about 20,000 feet, Manholes, etc.

Sind.

Hyderabad.—Laying distribution pipe in town and cantonment, Rs. 14,000, and partition wall in roofing of Shahakadam tank, Rs. 35,794.

Karáchi.—Improvements, Rs. 30,731.

Jacobabad.—Removing of silt from the tank and puddling, Rs. 2,730.

Sukkur.—Part construction of intake well and new jack well, Rs. 7,140.

6. The following drainage works were either in progress or completed during the year and the expenditure during the year is given in each case.

Southern Division.

Bijápur.—Draining Godbole Mala and special repairs to existing surface drains, Rs. 1,990.

Guledgud.—Storm-water drain along the foot of Guledgud hill and slab drains with 3 openings, Rs. 3,317.

Bagalkot.—Covered drain 1,865 feet, Rs. 7,443.

Ratnágiri.—Draining Gowliwada nalla and filling in insanitary tank completed, Rs. 6,220.

Central Division.

Poona.—A water borne drainage system for Agriculture College and Research Institute consisting of two 28′ × 10′ septic tanks and two 34′-6″ diameter filters with ideal revolving sprinklers, Rs. 31,700.

A covered drain about 450 feet to divert storm water from St. Paul's tank, Rs. 4,000.

Drainage of the students' quarter, Engineering College, Poona.—A 6″ stoneware pipe of about 1,100 feet with 7 manholes completed, Rs. 2,100.

Drainage of the Central Offices buiding.—Stoneware pipe sewer 9″ and 7″ diameter of about 1730 and 1801 feet respectively with 13 manholes completed cost Rs. 19,485.

Poona City Drainage.—Laying of main sewers 120 feet with accessories, such as flushing tanks, 37 ventilating shafts, etc., branch sewers 28,460 feet, 15″ effluent main 9,902 feet, engine house and chimney of the Central Pumping Station completed, 1,752 house connections in addition to the one given free to each house, septic tank with detritus pits at Hadapsar were completed, Rs. 2,45,135, which includes expenditure on water works.

Northern Division.

Ahmedabad.—Minor improvements, a separate smithy room and laying new drainage lines, Rs. 39,389.

Sind.

Hyderabad.—Construction of new surface drains and filling in insanitary tank, Rs. 40,954.

Karáchi.—Two miles of gravitation sewer lines, Rs. 63,540.

Sukkur.—Open surface drains with stoneware pipe inverts, Rs. 569.

7. During the year sanction was received to the formation of the Northern and Southern Sanitary Districts. The former with head-quarters at Ahmedabad comprises the following Revenue Districts :—

Ahmedabad, Kaira, Panch Mahals, Surat, Broach,	Thána, Násik, East Khándesh, West Khándesh,

and the latter with head-quarters at Belgaum comprises—

Belgaum,	Kolába,
Dhárwár,	Poona,
Bijápur,	Sholápur,
Kánara,	Ahmednagar,
Ratnágiri,	Sátára.

Sind is retained under the direct control of the Sanitary Engineer to Government and a separate sub-division has been formed for the purpose.

8. Numerous surveys and investigations were undertaken and several projects were drawn up. The most important of these the Ahmednagar Drainage Scheme, estimated to cost Rs. 8,72,050, and the Surat Drainage Scheme, estimated to cost about Rs. 25,00,000, were well advanced.

9. Borings for ascertaining artesian water supplies and the rock foundations at places—Broach, Viramgám, Gogo, Ahmednagar, Nadiád, Dholera, Sábarmati, Mahábleshwar and Godhra were in progress.

10. The Analyst to the Sanitary Board carried out work in connection with the special research on the Poona waters during several months of the year under report.

11. The Mechanical Engineer to Government gave valuable advice to the Executive Engineers concerned in designing suitable machinery for water-supply and drainage projects. He inspected pumping installations at several places in the Presidency proper and in Sind and offered very valuable advice to the local bodies concerned. As a result of his inspections there has been a marked improvement in the upkeep of the majority of the municipal pumping plants.

12. An experimental mechanical filter (Paterson) was installed at the Poona Cantonment water works and a complete installation for treating the whole of the Poona Cantonment water-supply has been recommended by the Board and the project is now under the consideration of the Government of India. The use of a coagulant during the monsoon months greatly improved the quality of the water supplied from the existing slow sand filters.

13. The Sanitary Engineer carried out his annual tour throughout the Presidency including Sind and gave advice to the local bodies generally.

H. O. B. SHOUBRIDGE, M.I.C.E.,
Secretary, Sanitary Board,
Bombay Presidency.

APPENDIX II (*a*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31st DECEMBER 1914.

I.—Summary.

The following summary shows the inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the harbour and docks during the year ending 31st December 1914.

1,099 vessels of all sorts with 309,121 crew and passengers (including 114,641 troops) were examined as against 992 vessels with 181,497 crew and passengers during the preceding year.

The clothing, bedding and other articles of 89,658 members of crews and passengers of outgoing and incoming vessels and of members of crews of vessels lying in the Port were disinfected. Of these 68,645 were Asiatic and African members of crews, third class or deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India and 21,013 were members of crews, passengers and pilgrims who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while lying in the Port.

39 vessels on which cases of infectious diseases had occurred were disinfected and 17 vessels which carried pilgrims to Jeddah were thoroughly cleansed and freed from rats, cockroaches, etc., by means of sulphur dioxide gas generated in a Clayton apparatus. Besides the outgoing pilgrim ships 5 incoming vessels, 42 outgoing vessels (including 8 troopships) and 2 ships lying in the harbour were also fumigated. 153 persons among whom cases of small-pox had occurred were vaccinated. In addition to this number 9,102 outgoing pilgrims were vaccinated by a special vaccinating staff lent by the Municipality under the direction of the Police Commissioner. Many pilgrims had also been vaccinated in other Provinces and Native States before their departure for Bombay. Including these it is probable that about 75 per cent. of the departing pilgrims were thus afforded proctection from contracting small-pox in the Hedjaz.

II—Outgoing Vessels.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P., dated 14th June 1899, and No. 2671-P., dated 2nd October 1912, the medical examination of all vessels, crews and passengers proceeding to ports out of India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with berth accommodation, of fourth class and deck passengers and of all Asiatic and African servants who sailed on such vessels (with the exceptions referred to in para. 4 below) were carried out immediately before they left the Port of Bombay.

3. 913 outward bound vessels (including hired transports carrying troops and Asiatic sailing craft) with 88,495 crew and 167,415 passengers (including troops) or a total of 255,910 persons were inspected as against 808 vessels with 74,637 crew and 64,628 passengers or a total of 139,265 persons during the preceding year.

4. The bedding, boxes and suspected articles of clothing, etc., of 40,663 Asiatic and African members of crews and of 27,698 third, fourth class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the clothing, bedding and other effects of 858 members of crews and 26 passengers who sailed in Asiatic sailing craft for ports out of India were also disinfected. By direction of H. E. The Naval Commander-in-Chief the disinfection of the effects of the crews of transports was not enforced. Plague certificates were therefore not issued to such vessels but only Bills of Health and Necrological certificates.

5. A few vessels had cases of infectious diseases among their crews and passengers within 12 days prior to their departure from this Port. The Bills of Health granted to these mentioned the diseases which had occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of infection on board or its introduction at other ports.

III—Incoming Vessels.

6. In accordance with the Rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, vide Notification, General Department (Plague), No. 1615-P, dated the 12th March 1900, and Notification, General Department, No. 625, dated the 1st February 1905, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P, dated the 31st March 1900, medical inspection and disinfection of vessels which were actually infected or suspected to be infected were carried out. All pilgrim-ships and all vessels which arrived from East African Ports were also inspected on arrival.

7. 173 incoming vessels of various kinds with crews aggegating 14,337 persons and 38,223 passengers were thus inspected during the year. Of the 173 vessels inspected 26 were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. 3 of these were troopships with 699 crew and 3,793 troops among whom a case of plague and 3 cases of scarlatina had occurred. The plague case proved fatal during the voyage and the body of the deceased was buried at sea. The patients suffering from scarlatina were removed to the Military Hospital at Colaba for treatment. One was a vessel from East African Ports with 73 crew and 498 passengers, among whom 2 cases of chicken-pox had occurred. The cases were removed to the Arthur Road Hospital for treatment. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. The clothing and bedding of the crew were also disinfected. 14 were vessels from Jeddah with 1,196 crew and 12,058 pilgrims among whom 66 cases of small-pox, 1 case of measles and 1 case of chicken-pox had occurred. 46 patients suffering from small-pox, measles and chicken-pox were removed on arrival here to the Arthur Road Hospital for treatment. 21 small-pox cases were landed at intermediate ports and one died during the voyage. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations upcountry. The vessels were disinfected and 5 of them were fumigated by the Clayton apparatus, the bedding and effects of crews being separately disinfected. The remaining 8 vessels arrived from other ports with 1,390 crew and 655 passengers among whom 1 case of plague, 3 cases of small-pox, 4 cases of measles and 1 case of chicken-pox had occurred. The vessels and the clothing and bedding of the crews and passengers were disinfected.

IV.—Infectious Diseases on Vessels arriving and departing and in the Harbour and Docks.

8. Tabular Statement No. 1 gives the number of cases of infectious diseases which occurred on vessels arriving, departing and in the harbour.

It will be seen that 83 cases occurred on vessels arriving as follows :—2 cases of plague, 69 cases of small-pox, 5 cases of measles, 4 cases of chicken-pox and 3 cases of scarlatina.

At the inspections of crews and passengers of outgoing vessels 1 case of chicken-pox was detected. One case of small-pox and one case of scarlatina were reported to have been landed at Aden from certain ships which arrived there from Bombay.

4 cases of plague, 9 cases of cholera, 4 cases of small-pox, and 4 cases of measles occurred on vessels including Asiatic sailing craft lying in the harbour and docks.

9. Tabular Statement No. 2 gives separately details of infectious diseases on vessels in the harbour and docks. The clothing and bedding of the crews of these vessels aggregating 651 persons were disinfected. All these vessels were thoroughly disinfected. Ships on which plague cases occurred were thoroughly fumigated in addition to the ordinary disinfection.

V.—Disinfection and Fumigation of Ships.

10. During the year under report 39 vessels of all sorts were disinfected.

11. The fumigation of 53 vessels including 17 outward and 2 inward pilgrim ships was carried out by means of the Clayton process under the direction of the Port Health Officer and of 11 coal lighters and 2 prows by burning sulphur in sigrees. 645 dead rats and innumerable cockroaches were found on these vessels after fumigation. In addition to this number the British India Steam Navigation Company had 14 of their vessels fumigated by their own apparatus.

12. The Port Disinfection Station received every Monday clothing and bedding from various hospitals for disinfection. 626 bundles containing such clothing and bedding were disinfected as against 541 during the previous year. 8,200 blankets were also disinfected during the year at the request of the Marine Transport Officer, Bombay.

VI.—General Health of the Shipping.

13. During the year under report 1,336 persons connected with the shipping were admitted into the various hospitals in the city. The St. George's Hospital admitted 625 European patients, of whom 20 died, 580 were discharged cured and 25 remained under treatment after the 31st December 1914. The Jamsetji Jijibhoy Hospital admitted 230 Asiatic patients, of whom 25 died; the Gokuldas Tejpal Hospital 413 Asiatics, of whom 51 died; and the Arthur Road Hospital 78 Asiatics, of whom 19 died and 59 were discharged cured.

14. No deaths occurred in connection with the cleansing of bilges of ships during the year. There were 319 minor accidents on board of vessels which were lying in the harbour or docks.

VII.—Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

15. In accordance with the Government of India's Notification, Home Department (Sanitary), No. 1606, dated the 13th July 1908, and Government Resolution, General

Department, No. 4361, dated the 18th August 1909, and Government of India's Notification Department of Education (Sanitary), No 635, dated Simla, the 24th April 1912, reproduced in Bombay Government Notification, General Department, No. 2759, dated 30th April 1912, tho Ports of Bombay and Karáchi were open for the embarkation of Muhammadans going on pilgrimage to Mecca *via* Jeddah. Before the pilgrims embarked at Bombay the ships were thoroughly cleansed and freed from rats by means of the Clayton process. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark.

16. The names of the ships, the numbers of pilgrims carried by them and the dates on which they left Bombay for Jeddah are given below :—

	Name of vessel.	Number of pilgrims sailed.	Date of departure.
1.	S.S. "Lawoe" ...	402	... 30th May 1914.
2.	S.S. "Homayun" ...	422	... 6th June 1914.
3.	S.S. "Khosrou" ...	716	... 17th do.
4.	S.S. "Sumatra" ...	909	... 4th July 1914.
5.	S.S. "Akbar" ...	1,137	... 13th do.
6.	S.S. "Budrie" ...	466	... 17th do.
7.	S.S. "Islami" ...	747	... 28th do.
8.	S.S. "Jeddah" ...	558	... 29th do.
9.	S.S. "Lawoe" ...	706	... 29th do.
10.	S.S. "Khosrou" ...	428	... 8th August 1914.
11.	S.S. "Koweit" ...	1,121	... 25th do.
*12.	S.S. "Mansuri" ...	613	... 4th September 1914.
13.	S.S. "Budrie" ...	480	... 11th do.
14.	S.S. "Jelunga" ...	878	... 15th do.
15.	S.S. "Bahrein" ...	443	... 25th do.
16.	S.S. "Sardar" ...	636	... 26th do.
17.	S.S. "Lawoe" ...	664	... 2nd October 1914.
18.	S.S. "Islami" ...	596	... 4th do.
		11,922	

* This vessel was fumigated at Karáchi.

17. It will be seen that 11,922 pilgrims left during the season as against 15,319 in the previous year. Of the abovementioned pilgrim ships the S. S. "Mansuri" originally started from Karáchi with 222 pilgrims and took on 391 more from Bombay.

18. The classification of the pilgrims is as follows :—

230	Bombay City.	366	Chinese Territory.
441	Bombay Presidency (including Sind).	661	Afghanistan.
767	Madras Presidency and Malabar.	6	Baluchistan.
1,884	Bengal Presidency.	1	Persia.
3,534	Eastern Bengal and Assam.	497	Russian Territory.
606	United Provinces and Oudh.	98	Arabia.
1,066	Punjab and North-West Frontier.	146	Sumatra.
120	Central Provinces.	12	Turkey.
117	Central India.	13	Java.
131	Burma.	312	Nepal State.
4	Ceylon (British Colony).	27	Straits Settlements.
661	Native States.	222	Pilgrims by S. S. "Mansuri from Karáchi unclassified.
9,561		2,361	

Total ... 11,922

19. 9,102 outgoing pilgrims were vaccinated before starting by a special staff placed under the Police Commissioner by the Municipality. Besides these, many pilgrims from other Provinces and Native States had been vaccinated before leaving their homes for Bombay. It is thus probable that about three-fourths of the pilgrims had been persuaded to voluntarily undergo vaccination and, considering that most of these were illiterate and many fanatical, it reflects the greatest credit on the Pilgrim Department under the Commissioner of Police and others who aided in persuading so large a percentage to avail themselves of the measure.

20. A fully equipped plague observation station, capable of receiving an entire ship-load of pilgrims from a plague-infected vessel for treatment under Article 21 of the Paris Convention was established at Perim. All the pilgrim-ships, after having been inspected at Aden or Perim, called at Camaran where they landed their passengers to undergo observation according to Turkish Rules before the Turkish authorities allowed them to proceed to Jeddah. Among the pilgrims of one of the ships undergoing quarantine at Camaran 4 cases of cholera are reported to have occurred. One case proved fatal and the remaining three recovered. The pilgrims had therefore to undergo quarantine for 10 days. As this ship, on arrival at Aden and Camaran, was declared to be free from any infectious disease it is most likely that the patients contracted the infection in the Quarantine Camp.

21. From the medical diaries of the doctors in medical charge of pilgrim ships it appears that there were 61 deaths on board these ships between Bombay and Jeddah. The chief causes were malaria, oldage, general debility, dysentery, diarrhœa, heart disease, sun-stroke, asphyxia, phthisis, pneumonia, etc.

22. During the season under report no doctor was appointed to the medical charge of a pilgrim ship unless he was in possession of either a degree, or at least the license of a recognized Indian University, or the qualification of a Military Assistant Surgeon.

B.—Inward Pilgrim Traffic.

23. During the year under report 18,451 pilgrims including a number who left Bombay in the previous year's Haj, arrived from Jeddah in 22 vessels. The names of the ships and the number of pilgrims brought by each vessel as well as the number of cases of infections diseases which were found among the pilgrims on arrival in Bombay are tabulated in Statement No. 3 which is attached to this report.

24. It will be noticed that over 3,000 pilgrims were brought back in empty Government transports which had to be specially employed in connection with the Inward Pilgrim traffic owing to the scarcity of regular pilgrim ships at Jeddah where many pilgrims were waiting to return to India.

25. The total number of deaths which occurred at sea among the returning pilgrims was 201. The chief causes were oldage, general debility, dysentery, diarrhœa, pneumonia, inanition, heart failure, sun stroke, paralysis, bronchitis, phthisis, privation, etc.

26. 14 pilgrim-ships had during their voyage from Jeddah to Bombay 66 cases of small-pox, one case of measles and one case of chicken-pox, of which 7 cases of small-pox were detected at the Disinfection Shed while the pilgrims were undergoing disinfection of their clothing and bedding. 16 of the small-pox patients were landed at Aden, 5 at Perim and one died during the voyage and the remaining 44 were removed to the Arthur Road Hospital for treatment. 12,058 pilgrims, among whom the cases had occurred, had their clothing and bedding disinfected before they were handed over to the Protector of Pilgrims for despatch to their homes. The effects of 1,196 members of crews of the infected ships were also disinfected.

VIII.—Sanitary State of the Harbour and Foreshore.

27. The sanitary state of the harbour and of the various bandars, basins and docks was fairly satisfactory.

IX.—Cholera, Small-pox and Plague in the City of Bombay.

28. During the year under report 221 deaths from cholera, 252 deaths from small-pox and 2,941 deaths from plague occurred in the City of Bombay as against 125 deaths from cholera, 212 deaths from small-pox and 2,609 deaths from plague during the preceding year.

X.—Establishment.

29. The undersigned was in charge of the Port Health Department during the year under report.

30. The following list shows the names of the medical officers and subordinates who did duty under the Port Health Officer from time to time during the year :—

Names.	Period of service.
	Y. m. d.
Dr. (Miss) S. Smith	0 6 14
Dr. (Miss) M. E. Graham	0 5 17
Assistant Surgeon H. F. Otto, I. S. M. D.	0 7 18
Sub-Assistant Surgeon B. M. Bhatt	1 0 0
Do. do. F. H. Anklesaria	1 0 0
Do. do. A. V. Gokhale	0 3 24
Do. do. Z. M. Sheikh	0 2 20

31. In addition to the above medical staff the services of a Commissioned Medical Officer had to be engaged on several occasions when work was heavy, particularly in connection with the simultaneous departures of numbers of troopships. An extra Lady Doctor had also to be engaged from time to time, chiefly on account of the Pilgrim Traffic.

32. Dr. (Miss) S. Smith proceeded to England on combined leave from 21st May 1914 to 6th November 1914 and Dr. (Miss) M. E. Graham was appointed to act for her.

33. Assistant Surgeon H. F. Otto, I. S. M. D., was transferred to military duty on 18th August 1914.

34. The Medical, Sanitary Police and Clerical Staffs and the members of the Launch, Disinfection and Menial Establishments carried out their respective duties with energy and zeal and to my entire satisfaction.

35. Moulvi Abdulla Ahmed, the Protector of Pilgrims, Mrs. M. Lennon, the Lady Superintendent of Pilgrims, Mr. H. M. Robottom, the Inspector of the Preventive Service, and the Dock Police under Superintendent J. Walton rendered much help to the Port Health Staff while carrying out the inspection and disinfection of pilgrims and in connection with their despatch from the disinfection station to the steamers by which they travelled.

36. I am also indebted for valuable assistance in the embarkation of pilgrims and otherwise to Mr. A. R. Bennett, Assistant Collector of Customs, who gave much of his time in order to help in securing harmonious working between the different departments concerned.

37. The shipping agents and commanders of vessels, as a rule, observed the regulations and carried out cheerfully the orders framed in connection with the Paris Sanitary Convention.

W. E. JENNINGS, M.D., D.P.H.,
Lt.-Colonel, I.M.S.,
Health Officer of the Port.

Bombay Port Health Office:
Town Customs House, dated 23rd February 1915.

TABLE No. 1.

The following tabular statement gives a summary of the shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1914 :—

Vessels including country craft.	Number of vessels inspected.	Number of persons inspected including crew of vessels.	Number of Asiatic crew and 3rd class or deck passengers disinfected.	Number of vessels.		Number of persons vaccinated.	Diseases and number of each case.						
				Disinfected.	Fumigated.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Sleeping sickness.
1914.													
Entered	173	52,560	20,362	26	5	153	2	...	69	5	4	...	3
Left	913	2,55,910	68,645	...	59	9,102	...	..	1	...	1	...	1
In harbour during the year.	13	651	651	13	2	.....	4	9	4	4	...	..	..
Total ...	1,099	3,09,121	89,658	39	66	9,255	6	9	74	9	5	...	4
Total for 1913 ...	992	1,81,497	96,543	29	54	11,247	1	2	4	14	21	4	...

TABLE No. 2.

The following table includes all steamers, square-rigged vessels and Native sailing craft which became infected while lying in the Port of Bombay during the year 1914 :—

Months.	Number of persons who were attacked with infectious diseases at the Bunder and in Docks.		Total number of infected vessels.	Total number of infectious diseases in the Bombay Harbour.					Number of crew disinfected.
	Plague.	Cholera.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	
1914.									
January	...	...	3	...	...	3	...	...	182
February	...	...	1	...	...	...	1	...	90
March	...	...	...	...	...	...	...	...	...
April	1	...	1	1	...	...	...	...	10
May	...	...	1	1	...	...	...	...	10
June	...	...	...	...	...	...	...	...	...
July	...	...	1	1	1	...	...	...	1
August	...	...	5	...	6	1	3	...	178
September	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...
December	...	...	1	...	2	...	...	...	171
Total ...	1	...	13	3	9	4	4	...	651
Total for 1913 ...	...	...	8	1	2	1	2	5	297

TABLE No. 3.

Statement showing the number of pilgrims who returned to Bombay from Mecca by vessels during the year 1914.

No.	Name of Ship.	Date of arrival, 1914.	Number of crew inspected.	Number of pilgrims inspected.	Number of deaths during voyage.	Number of cases of infectious diseases on board during voyage.		Number of persons vaccinated.	Remarks.
						On arrival.	During voyage.		
1	S.S. "Rahmani" ...	1st January ...	91	694	5	...	...	...	
2	S.S. "Firoozi" ...	9th do. ...	79	812	9	...	...	...	
3	S.S. "Koweit" ...	9th do. ...	103	1,103	12	1	...	...	1 case of small-pox landed at Bombay.
4	S.S "Homayan" ...	16th do. ...	97	809	4	...	...	..	
5	S.S. "Islami" ...	20th do. ...	82	739	6	...	...	...	
6	S.S. "Mansuri" ...	25th do. ...	84	688	6	1	...	...	1 case of chicken-pox (mild).
7	S.S. "Budrie" ...	25th do. ...	88	338	4	2	...	...	2 cases of small-pox landed at Bombay.
8	S.S. "Lawoe" ...	28th do. ...	99	666	3	...	...	...	
9	S.S. "Bahrim" ...	28th do. ...	91	474	7	...	...	...	
10	S S. "Rahmani" ...	9th February ...	90	656	8	1	...	...	1 recovered case of mild measles.
11	S.S. "Lawoe" ...	1st April ...	78	392	3	...	...	...	
12	S.S. "Sardar" ...	20th November ...	86	649	8	4	...	...	4 cases of small-pox landed at Bombay
13	S S. "Islami" ...	20th do. ...	78	734	7	6	...	...	6 cases of small-pox landed at Bombay.
14	S.S. "Bahrim" ...	21st do. ...	85	463	...	...	...	...	
15	S.S. "Alavi" ...	23rd do. ...	76	741	11	2	...	...	2 cases of small-pox landed at Bombay.
16	S.S. "Lawoe" ...	24th do. ...	85	719	5	2	...	...	2 cases of small-pox landed at Bombay.
17	S.S. "Firoozi" ...	8th December ...	80	1,131	14	8	...	...	8 cases of small-pox landed at Bombay.
18	S.S. "Koweit" ...	9th do. ...	108	1,393	10	7	...	...	7 cases of small-pox landed at Bombay.
19	S.S. "Mansuri" ...	11th do. ...	85	806	11	3	...	...	3 cases of small-pox landed at Bombay.
20	H.T. "Arankola" ...	20th do. ...	171	1,080	13	5	...	...	4 cases of small-pox landed at Bombay. 1 case of small-pox died during voyage.
21	H.T. "Cocoanada" ...	24th do. ...	106	2,385	40	3	16	...	16 cases of small-pox landed at Aden. 3 do. do. at Bombay.
22	S.S. "Jelunga" ...	24th do. ...	130	978	15	2	5	...	5 cases of small-pox landed at Perim. 2 do. do. at Bombay.
			2,072	18,451	201	47	21	...	

APPENDIX II (*b*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF KARACHI FOR THE YEAR ENDING 31ST DECEMBER 1914.

Port Health Office and Disinfection Station,
Kiamari, Karachi, dated the 20th January 1915.

Outgoing Vessels.

During the year under report 432 steam vessels outward-bound for ports out of India were inspected by the Health Officer of the Port and were given bills of health as against 474 during the preceding year. Of this number 265 were proceeding to Aden, the Red Sea and Europe, and 167, including 67 Hired Transports, to other ports out of India including the Persian Gulf.

Bills of health were also given after inspection to 289 country boats, as against 292 during the preceding year.

The native crews and deck passengers of all steamers and country boats proceeding to ports out of India were medically inspected, their boxes scrubbed and finally rinsed out with a solution of perchloride of mercury, and their bedding and clothing were disinfected by steam at the Port Health Disinfection Station.

Boots and shoes requring disinfection were exposed to the action of formaldehyde gas in the apparatus upto 2nd May 1914 and from 3rd May the disinfection of boots and shoes has been discontinued as per Government Resolution, General Department, No. 3123, dated 22nd April 1914.

Incoming Vessels.

Fifty-three steamers and 6 country boats were inspected for the existence of infectious disease, as against 103 and 27 in the preceding year. Of the 53 steamers, 4 were troopships, 25 from East Africa and the remaining 24 from various other ports. The 6 country boats were all from East African Ports.

Synopsis of Inspection and Disinfection Performed.

The following tabular statement shows the number of vessels and crews and passengers inspected during the year :—

	Vessels.			Crews and passengers.		
	Steamers.	Country boats.	Total.	Steamers.	Country boats.	Total.
Incoming	53	6	59	13,767	129	13,896
Outgoing	432	289	721	107,574	3,805	111,379
					Total ...	125,275

Of the 125,275 crews and passengers who were medically inspected on their arrival at or departure from the port of Karachi, 45,908 including 5,104 followers, also had their bedding and clothing disinfected. The corresponding figures for last year were 88,811 and 44,688 respectively.

Miscellaneous Disinfection.

On several occasions during the year the clothing and bedding of patients suffering from infectious disease and "contacts" were received for disinfection from the Epidemic Diseases Hospital, the Civil Hospital, and other Institutions in Karachi, and from private individuals, and were duly disinfected by steam in the Equifex Stove.

P. & O. Mail Passengers.

Two hundred and twenty Saloon passengers proceeding to Europe *via* Bombay were medically inspected on shore at Karachi and given passes for direct transhipment to the P. & O. mail steamers at Bombay.

Plague.

During the year under report the S. S. "Lindula" which arrived here at Karachi on the 19th April 1914 from the Persian Gulf reported a case of plague on board of a Goanese saloon crew. The case was removed to the Epidemic Diseases Hospital for treatment and all the necessary precautions were taken on board and telegraphic information was sent to the Port Health Officer, Bombay, as she continued her voyage to Bombay.

Cholera.

No cases of this disease were detected during the year.

Small-pox.

Five cases of small-pox with 11 "contacts" were removed from incoming vessels to the Epidemic Diseases Hospital for treatment, *viz.*, one with 5 contacts from the S. S. "Dwarka" on the 8th January, one from the S. S. "Barala" on the 15th January, one from the S. S. "Spuna" on the 16th January, one with 6 contacts from the S. S. "Baroda" on the 22nd February, and one from the S. S. "Bankura" on the 8th March 1914. The precautionary measures were taken on board the steamers concerned, on their arrival, and when they left for Bombay intimation was sent to the Port Health Officer of that port by telegram.

The S. S. "Kola" which arrived at Karáchi on the 6th March 1914 reported that a case of small-pox had occurred on board amongst the deck passengers. The case had been landed at Muscat and the ship's 'tween decks disinfected and white-washed there. On arrival at Karáchi the crew and passengers were medically inspected and found to be healthy. A telegram was despatched to the Port Health Officer, Bombay, for information.

Chicken-pox.

No cases of this disease were detected during the year.

Measles.

One case (Captain's child) on board the S. S. "Lawoe" in Karáchi Harbour was removed to the Epidemic Diseases Hospital for treatment. The usual precautions were taken on board.

Jigger.

No cases of this disease were detected during the year.

Sleeping-Sickness.

No cases of this disease were detected during the year.

Typhus Fever.

The 3rd officer of the Hired Transport "Freinfels" was removed to the Civil Hospital on the 20th October 1914 and died there on the 25th October 1914. The cabin occupied by the deceased officer was disinfected with formaldehyde gas and afterwards thoroughly washed out with liquid disinfectants. The native crew were brought at the Disinfection Station and whole of their kit and baggage disinfected. The kit of the European crew including all bedding, clothing and the cushions, curtains, etc., from the cabins was disinfected at the Disinfection Station. Thereafter the crew were mustered each day and inspected. No further case of this disease having occurred upto 28th October 1914, the Marine Transport Officer was notified that the ship could be safely used for the embarkation of troops.

Deaths from other diseases on ship board reported.

During the year under report 22 deaths from non-infectious diseases are reported as having occurred on board vessels either in Karáchi Harbour or during the voyage to Karáchi.

Cases of other diseases detected.

Seven cases of non-infectious diseases of all sorts amongst the ship's crews and passengers were detected during the year, of which 1 was sent to his home and 6 to the Civil Hospital for treatment.

One case of rheumatic fever amongst the British soldiers on board the S. S. "Nevasa" was landed at Malta. On arrival here of the S. S. "Nevasa" no case of infectious or contagious disease was found on board. The hospital bedding of the S. S. "Nevasa" including 4 blankets, 33 pillows and 20 mattresses were disinfected at the Port Health Disinfection Station. The hospital bedding of the S. S. "Galeka" was reported to be infected with vermin and 135 pillows and 94 mattresses were disinfected. The hospitals of both ships were thoroughly disinfected before re-embarkation of troops.

Emigrants.

One hundred and twenty-two, including 55 sweepers, 51 artisans and 16 cooks, proceeding to Mombassa, East Africa, *via* Bombay, were medically examined by the Health Officer of the Port, as Medical Inspector of Emigrants, and certificates given that they were in a fit state of health to undertake the voyage to East Africa, as required in Section 65 (1) of the Indian Emigration Act of 1908.

Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

In accordance with Government of India's Notification, Department of Education (Sanitary), No. 635, dated Simla, the 24th April 1912, and Government Resolution, General Department, No. 2670, dated the 26th April 1912, and Government Resolution, General Department, No. 8799, dated 3rd November 1914, the Port of Karáchi was open for the embarkation of Mahomedans making a pilgrimage to Mecca *via* Jeddah. Before the pilgrims embarked at Karáchi the ships were thoroughly cleansed and freed from rats by means of the Clayton process. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark.

The names of the ships, the numbers of pilgrims carried by them and the dates on which they left Karachi for Jeddah are given below :—

No.	Name of vessels.	Number of pilgrims.	Date of departure.
1	S. S. "Bahrein"	160	11th July 1914.
2	S. S. "Homayun"	412	26th July 1914.
3	S. S. "Jeddah"	1,161	1st August 1914.
4	S. S. "Mansuri"	339	23rd August 1914.
	Total ...	2,072	

Out of 2,072 pilgrims there were 558 pilgrims from Bombay on the S. S. "Jeddah" which proceeded to Mecca from this port taking additional 603 pilgrims.

B.—Inward Pilgrim Traffic.

No pilgrim ship arrived in Karáchi during the year.

Pilgrim Camp.

The Camp was opened on 1st July 1914 under the charge of the Protector of Pilgrims and closed, so far as the outward pilgrim season was concerned upto 30th September 1914. During this period over 1,200 pilgrims availed themselves of the accommodation offered by the Camp although some pilgrims lodged in the local Musáferkhánas and in private houses with friends in the town. The additional Port Health Staff entertained for the outward pilgrim traffic consisted of one Sub-Assistant Surgeon and one wardboy. 70 cases of illness of all sorts which occurred amongst the pilgrims were treated in the dispensary at the Pilgrim Camp; there were no deaths.

One thousand three-hundred and twenty-nine pilgrims were vaccinated and re-vaccinated in Karáchi during the outgoing Haj Season.

Clayton Apparatus.

During the year the Clayton Apparatus was used to fumigate 15 vessels, 3 of these were pilgrim ships and the remaining 12 were claytonised at the request of their Agents before sailing hence for ports out of India as shown in the following table:—

No.	Name of Vessels.	Date of Fumigation.	Remarks.
1	S. S. "Islami" ...	25th January 1914 ...	At the request of the Agent.
2	S. S. "Havildar" ...	15th February 1914 ...	Do.
3	S. S. "Islami" ...	10th April 1914 ...	Do.
4	S. S. "Abydos" ...	6th May 1914 ...	Do.
5	S. S. "Mansuri" ...	14th May 1914 ...	Do.
6	S. S. "Pasha" ...	17th May 1914 ...	Do.
7	S S. "Alfeld" ...	27th May 1914 ...	Do.
8	S. S. "Ferozi" ...	1st June 1914 ...	Do.
9	S. S. "Bahrein" ...	27th June 1914 ...	Pilgrim ship.
10	S. S. "Homayun" ...	19th July 1914 ...	Do.
11	S. S. "Uganda" ...	21st July 1914 ...	At the request of the Agent.
12	S. S. "Nairung" ...	6th August 1914 ...	Do.
13	S. S. "Mansuri" ...	14th August 1914 ...	Pilgrim ship.
14	S. S. "Bahadur" ...	3rd December 1914 ...	At the request of the Agent.
15	S. S. "Pacific" (Transport).	31st December 1914 ...	Do.

The fumigation was always carried under the direct supervision of the Port Health Officer or his Assistant.

Sanitary State of the Harbour.

The Sanitary State of the Harbour was fairly satisfactory.

Buildings.

The proposed waiting shed for Karáchi passengers sanctioned in Government Resolution, Public Works Department, No. C. W.—7508, dated 4th July 1914, was built during the year under report.

The additional and large Equifex Stove which was sanctioned in Government Resolution, General Department, No. 6908, dated 26th September 1913 and re-sanctioned in Government Resolution, General Department, No. 9649, dated 30th November 1914, was supplied and erected during the year and is now in use for the disinfection of the kit of the crews and passengers.

Establishment.

During the year under report Captain B. Higham, I.M.S., was the Health Officer of the Port from 1st January to 23rd February, Assistant Surgeon A. H. MacGregor, I.S.M.D., from 24th February to 4th March, Assistant Surgeon B. E. Ghasvala from 5th March to 6th August, Assistant Surgeon A. H. MacGregor, I.S.M.D., from 7th August to 12th September Captain B. Higham, I.M.S., from 13th September to 27th November and the undersigned has been in charge from the 28th November to the end of the year.

The following Medical Staff did duty under the Port Health Officers during the year:—

Assistant Surgeon A. H. MacGregor I.S.M.D.

Assistant Surgeon G. DeSousa Fylinto.

Sub-Assistant Surgeon Baharsing Toursing.

Mrs. Lake, Lady Nurse.

The above Medical Staff carried out their respective duties, which were of a very responsible nature with energy and tact.

The Head Clerk, Mr. Mahomed Jaffer Shaikh Ibrahim, performed his duties very conscientiously, efficiently and to the entire satisfaction of the Port Health Officers during the year.

The office peons and all the members of the disinfection and steam launch and Clayton apparatus establishments worked satisfactorily.

G. DeS. FYLINTO,
Assistant Surgeon,
Health Officer of the Port, Karáchi.

APPENDIX II (*c*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT, ADEN, FOR THE YEAR 1914.

I.—General Remarks.

Shipping.—1,510 steamers and rigged vessels were granted bills of health during the year.

Of the above number 1,048 were sailing under the British flag and 462 under Foreign flags.

Bills of health issued to vessels having had cases of infectious disease were annotated according to the circumstances of each case.

1,452 bills of health were issued to buggalows during the year.

The accompanying table A gives a list of vessels on board of which infectious disease existed on arrival. In the case of these vessels all sanitary precautions were taken to prevent the spread of disease.

The following cases of infectious disease were landed from the shipping:—

Small-pox	... 7	exclusive of cases from pilgrim ships.
Scarlatina	... 2	
Chicken-pox	... 1	

II.—Pilgrim Traffic.

Forty-seven ships carrying pilgrims passed through this port during the year; all were medically inspected, but they were not granted pratique:—

Year.	Number of ships.	Number of pilgrims.	Number of deaths.	Remarks.
1914	47	33,204	67	

III.—Table A.

List of vessels on board of which cases of infectious diseases existed on arrival at this port, during the year ending 31st December 1914:—

Date.	Name of ship.	Nationality.	From	To	Number of cases.	Remarks.
	Steam ships.					
13th January 1914.	Queen Olga ...	Russian ...	Persian Gulf...	Odessa ...	1 s.-p. .	Landed.
18th „ „	Derfflinger ...	German ...	Bremen ...	Yokohama ...	1 scart .	Landed.
10th February 1914.	Llandovery Castle ...	British ...	London ...	Durban ...	1 c.-p., 1 scart.	On board.
7th March 1914 ...	Mombassa ...	Do. ...	Calcutta ...	London ...	1 s.-p. .	Landed.
24th „ „ ...	Inkentrum ...	German ...	„ ...	Hamburg ...	1 s.-p. .	anded.
18th April 1914 ...	Palawan ...	British ...	Karachi ...	Red Sea ports.	1 s.-p. .	Landed.
2nd May 1914 ...	Arcadia ...	Do. ...	Bombay ...	London ...	1 scart .	Landed.
6th „ „ ...	Risaldar ...	Do. ...	Massawa ...	Colombo ...	1 s.-p. .	Landed.
9th „ „ ...	Nera ...	French ...	Marseilles ...	Australia ...	1measles	On board.
16th Nov. 1914 ...	Crossby ...	British ...	Cardiff ...	Galle ...	1 s.-p. .	Landed.
11th December 1914.	Islami ...	Do. ...	Bombay ...	Jeddah ...	1 s.-p. .	Landed.
30th „ „	Tadjoura ...	French ...	Djibouti ...	Djibouti ...	1 c.-p. .	Landed.

IV.—The following are the names and other information regarding pilgrim ships which passed through Aden during the year under report:—

No.	Date and month.	Names of vessels.	Nationality.	From	To	Number of		
						Pilgrims.	Cases of infectious disease.	Deaths.
		Steam Ships.						
1	8th January 1914	Homayun	British	Jeddah	Bombay	813	.....	...
2	11th ,,	Islami	,,	,,	,,	747	.....	2
3	16th ,,	Budrie	,,	,,	,,	340	.....	...
4	,, ,,	Mansuri	,,	,,	,,	693	.....	...
5	18th ,,	Lawoe	,,	,,	,,	680	.....	...
6	19th ,,	Bahrein	,,	,,	,,	481	.....	...
7	31st ,,	Rahmani	,,	,,	,,	691	1 Slight M.	...
8	4th March 1914	Lawoe	,,	,,	,,	158	.....	...
9	23rd ,, ,,	Lawoe	,,	,,	,,	393	.....	...
10	9th April 1914	Alavi	,,	,,	,,	83	.....	...
11	29th June 1914	Khosrou	,,	Bombay	Jeddah	714	.....	2
12	15th July 1914	Sumatra	,,	,,	,,	908	.....	1
13	21st ,,	Bahrein	,,	Karachi	,,	180	.....	...
14	24th ,,	Akbar	,,	Bombay	,,	1,134	.....	3
15	1st August 1914	Budrie	,,	,,	,,	460	.....	3
16	7th ,,	Homayun	,,	Karachi	,,	414	.....	...
17	8th ,,	Katrino Slav	Russian	Singapore	Odessa	1,274	.....	...
18	9th ,,	Dai Sai Maru	Japan	Penang	Jeddah	265	.....	...
19	11th ,,	Islami	British	Bombay	,,	746	.....	1
20	12th ,,	Jeddah	,,	,,	,,	1,158	.....	2
21	14th ,,	Lawoe	,,	,,	,,	720	.....	2
22	28th ,,	Islami	,,	,,	,,	746	.....	...
23	,, ,,	Khosrou	,,	,,	,,	762	.....	...
24	,, ,,	Lawoe	,,	Camaran	,,	713	.....	1
25	5th September 1914	Koweit	,,	Bombay	,,	1,117	.....	4
26	12th ,,	Firoozi	,,	Busrah	,,	329	.....	..
27	15th ,,	Mansuri	,,	Bombay	,,	613	.....	3
28	22nd ,,	Budrie	,,	,,	,,	480	.....	...
29	27th ,,	Jelunga	,,	,,	,,	871	.....	7
30	3rd October 1914	Bahrein	,,	,,	,,	441	.....	4
31	4th October ,,	Sardar	,,	Bombay	,,	631	.....	1
32	10th ,,	Alavi	,,	Persian Gulf	,,	268	.....	5
33	12th ,,	Islami	,,	Bombay	,,	595	.....	1
34	,, ,,	Lawoe	,,	,,	,,	663	.....	2

No.	Date and month.	Name of vessels.	Nationality.	From.	To.	Number of		
						Pilgrims.	Cases of infectious disease.	Deaths.
		Returning Pilgrim Ships.						
35	12th November 1914.	Sardar ...	British ...	Jeddah ...	Bombay ...	655	.....	2
36	„ „ ...	Bahrein ..	„ ...	„ ...	„ ...	463	.....	...
37	„ „ ...	Islami ...	„ ...	„ ...	„ ...	737	.....	7
38	13th „ ...	Alavi ...	„ ...	„ ...	„ ...	743	.....	...
39	14th „ ...	Lawoe ...	„ ...	„ ...	„ ...	678	.....	...
40	„ „ ...	Budrie ...	„ ...	„ ...	Persian Gulf.	521	.....	1
41	29th „ ...	Firoozi ...	„ ...	„ ...	Bombay ...	1,122	.....	...
42	30th „ ...	Koweit ...	„ ...	„ ...	„ ...	1,411	.....	1
43	1st December 1914 ...	Mansuri ...	„ ..	„ ...	„ ...	802	.....	...
44	16th „ ...	Jelunga * ...	„ ...	„ ...	„ ...	1,173	.....	2
45	17th „ ...	Coconada ...	„ ...	„ ...	„ ...	2,200	18 cases small-pox.	11
46	23rd „ ...	Islami ...	„ ...	„ ...	„ ...	828	.....	3
47	25th „ ...	Bahrein ...	„ ...	„ ...	„ ...	585	.....	...

* Hired Transport.

V.—Prevailing Diseases.

Malarial Fever—Diseases of Respiratory and Digestive system—Ulcers—Local injuries :—

Vaccination was offered to all arrivals as an alternative to quarantine and residents of Aden, who had not been vaccinated, were persuaded to undergo the operation.

Small-pox existed in Sporadic form throughout the year.

There were no epidemics during the year under report.

VI.— Statement showing the number of cases treated at the Small-pox Hospital, Maalla, during the year :—

Year.	Remaining as per last return.	Admission.	Deaths.	Protected.	Unprotected.
1914 ...	11	47	7	33	18

Source of admission.						Remarks.
Shipping.	Steamer Point.	Maalla.	Crater.	Interior.	Europeans.	
25 ...	10	11	8	4	1	

VII.—Statement showing the tubes received, their cost and the vaccination operations performed during the year at the Port and in Tawahi :—

Number of tubes of Bombay Municipal Vaccine.	Cost.	Remarks.	Total number of vaccination operations performed.	Result.		Remarks.
				Successful.	Unknown or failed.	
6,700	Rs. a. p. 1,675 0 0		9,055	1,236	7,819	

VIII.—Establishment.

Lieut-Colonel S. E. Prall, I.M.S., Health Officer of the Port, Aden.—From 1st January to 17th February 1914.

Major A. F. W. King, I. M. S., acted from 18th to 26th February 1914.

Major J. L. Marjoribanks, I. M. S., acted from 27th February to 31st December 1914.

IX.—Office Establishment.

Mr. G. F. Andeen, clerk, 1st January to 31st December 1914.

Lakshman Krishna, peon, 1st January to 15th April 1914; went on 7 months' combined leave and was struck off the establishment roll from 1st December 1914.

Awad Salim was appointed acting peon from 16th April 1914, and resigned on 1st September 1914.

Ali Ahmed acted as peon from 1st September to 30th November 1914.

Hassan Saif was taken on from 1st December 1914 and has been working since.

Abdulla Hussain, night peon, from 1st January to 31st December 1914.

X.—Launch Establishment.

1. Driver Hussain Noman from 1st January to 31st December 1914.

2. Succani Ahmad Suliman from 1st January to 15th November 1914; was on leave from 16th November 1914. Lascar Mahomed Magan was appointed acting Succani during his absence on leave.

3. Baisher Hizam, stoker, from 1st January to 31st December 1914.

4. Mahomed Magan, lascar, from 1st January to 15th November 1914; from 16th November 1914 acted as Succani vice Ahmad Suleiman on leave.

5. Mukhtar Jaffer was appointed to act for lascar Mahomed Magan from 16th November 1914.

XI.—Disinfecting Stove Establishment.

This establishment is consisted of the following:—

1 Engine Driver, 1 fireman and 2 lascars.

The services of the establishment are sanctioned annually by Government. The above staff was employed throughout the year.

J. L. MARJORIBANKS,
Major, I. M. S.,
Health Officer of the Port, Aden.

Aden, 20th February 1915.

APPENDIX III.

The following table shows when the drainage systems and water-works were completed in the towns mentioned therein, with the average annual death-rate for the five-year period preceding the introduction and also the ratio for the five-year period ending with the year under report, exclusive of recorded plague mortality.

The rural death-rates for each district are added for comparison :—

District.	Táluka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1914 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in rural circles for the year 1914.	Plague mortality in rural circles for the year 1914.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay	*a* 1879	*b* 1892	32·36	27·98	.....	.....
West Khándesh	Dhulia	Dhulia	.....	1896	29·06	32·50	41·24	.....
Ahmednagar	Ahmednagar	Ahmednagar	.....	1897	23·60	55·65	34 96	·07
Surat	Chorási	Surat	.....	1893	22·77	39·77	31·61	2·19
Ahmedabad	Daskroi	Ahmedabad	*c* 1893	1891	47·15	45·21	29·53	.....
Karáchi	Karáchi	Karáchi	*c* 1895	1894	32·06	35·15	6 97	.....
Sukkur	Sukkur	Sukkur	.....	1895	27·66	28·70	23·79	.....
Thána	Sálsette	Bándra	.....	1896	24·53	23·01	23·84	·78
Kolába	Panvel	Panvel	.....	1895	23·68	19·50	29·89	·20
Dhárwár	Hubli	Hubli	.....	1894	27·09	25·70	27·12	3·28
Ahmedabad	Viramgám	Viramgám	*d* 1893	.....	36·44	69·28	30·93	.....
East Khándesh	Jálgaon	Jalgaon	.....	1909	30·15	31·56	38·53	·97
Sholápur	Pandharpur	Pandharpur	.....	1911	44·82	49·98	25·42	.....
Násik	Násik	Násik	.....	1913	35·33	52·73	41·93	3·67
Bijápur	Bijápur	Bijápur	.....	1913	22 11	30·08	28·98	1·79

a Drainage works commenced in 1879 are still in progress.

b Tánsa water-works completed in 1892. Besides these there are Vehár and Tulshi water-works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1914.*

1	2	3			4			5			6	7	8	9		
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	East Khándesh ..	521,546	512,668	1,034,214	28,343	27,333	55,676	27·40	26·43	53·83	103·70	15·25	..	25·75	24·32	50·07
2	West Khándesh ...	293,300	287,380	580,680	16,028	15,667	31,695	27·60	26·98	54·58	102·30	17·43	..	27·40	26·11	53·51
3	Násik	455,045	448,599	903,644	22,124	21,234	43,358	24·48	23·50	47·98	104·19	7·77	..	25·50	24·47	49·97
4	Thána	456,673	424,235	880,908	16,478	15,720	32,198	18·71	17·84	36·55	104·82	10·18	..	18·12	17·13	35·25
5	Kolába	295,085	298,972	594,057	13,216	12,567	25,783	22·24	21·17	43·41	105·16	15·01	..	19·59	18·44	38·03
6	City of Bombay ..	629,354	333,509	963,363	9,758	9,602	19,360	10·13	9·97	20·10	101·62	..	12·60	10·71	10·25	20·96
	Central Registration District.															
7	Ahmednagar	475,163	468,828	943,991	21,402	20,373	41,775	22·67	21·58	44·25	105·06	7·90	..	20·54	19·52	40·06
8	Poona	538,238	526,568	1,064,806	19,605	18,165	37,770	18·41	17·06	35·47	107·93	2·66	..	17·33	16·10	33·43
9	Sholápur	391,311	376,706	768,017	15,458	14,777	30,235	20·13	19·24	39·37	104·61	4·34	..	21·50	20·40	41·90
10	Sátára	538,841	541,957	1,080,798	23,079	21,635	44,714	21·35	20·02	41·37	106·67	8·61	..	18·79	17·81	36·60
11	Ratnágiri	553,368	650,234	1,203,602	22,703	21,434	44,137	18·86	17·81	36·67	105·92	15·07	..	16·94	15·92	32·86
	Southern Registration District.															
12	Belgaum	478,458	463,490	941,948	20,589	19,920	40,509	21·86	21·15	43·01	103·36	9·26	..	20·68	19·29	39·37
13	Dhárwár	519,995	505,091	1,025,086	21,607	20,294	41,901	21·08	19·80	40·88	106·47	11·20	..	18·95	18·35	37·30
14	Bijápur	433,866	429,061	862,927	17,606	16,927	34,533	20·40	19·62	40·02	104·01	11·84	..	20·26	19·53	39·79
15	Kánara	220,065	210,369	430,434	7,324	6,903	14,227	17·02	16·03	33·05	106·10	3·54	..	16·80	15·91	32·71
	Gujarát Registration District.															
16	Surat	326,839	327,135	653,974	12,279	11,715	23,994	18·77	17·92	36·69	104·81	4·86	..	19·22	18·23	37·45
17	Broach	158,219	148,448	306,667	6,872	6,740	13,612	22·41	21·98	44·39	101·96	7·42	..	23·90	22·28	46·18
18	Kaira	370,174	321,468	691,642	15,231	14,202	29,433	22·02	20·54	42·56	107·25	8·78	..	22·72	20·51	43·23
19	Panch Maháls ..	165,902	156,751	322,653	8,179	7,975	16,154	25·35	24·72	50·07	102·56	28·34	..	22·47	21·45	43·92
20	Ahmedabad	432,124	395,213	827,337	18,403	16,633	35,036	22·24	20·10	42·34	110·64	7·97	..	19·68	17·70	37
	Sind Registration District.															
21	Karáchi	290,390	225,943	516,333	6,150	5,064	11,214	11·91	9·81	21·72	121·45	2·42	..	13·13	11·32	24·45
22	Hyderabad	337,526	273,584	611,110	6,551	4,792	11,343	10·72	7·84	18·56	136·71	4·36	..	8·98	6·70	15·68
23	Thar and Párkar ..	241,274	192,091	433,365	5,629	4,504	10,133	12·99	10·39	23·38	124·88	7·69	..	11·46	8·94	20·40
24	Nawabshah .. .	247,719	200,759	448,478	4,776	3,436	8,212	10·65	7·66	18·31	139·00	4·77	..	10·31	6·96	17·27
25	Lárkhána	359,207	301,621	660,828	9,024	7,270	16,294	13·66	11·00	24·66	124·14	3·97	..	12·93	10·14	23·07
26	Sukkur	312,732	260,803	573,535	7,711	6,241	13,952	13·44	10·88	24·32	123·45	4·71	..	13·59	10·84	24·43
27	Upper Sind Frontier.	145,541	117,445	262,986	3,295	2,533	5,828	12·53	9·63	22·16	130·08	6·87	..	11·37	8·56	19·94
	Total for the Presidency ..	10,188,455	9,398,928	19,587,383	379,420	353,656	733,076	19·37	18·06	37·43	107·29	7·95	..	18·57	17·20	35·77

ANNUAL FORM NO. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1914.*

1	2	3	4	5			6.		7			8
Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS 1911).			BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	East Khándesh	4,550	227	521,546	512,668	1,034,214	55,676	53·83	20,549	19,355	39,904	106·17
2	West Khándesh	5,439	106	293,300	287,380	580,680	31,695	54·58	11,027	10,547	21,574	104·55
3	Násik	5,879	154	455,045	448,599	903,644	43,358	47·98	18,688	17,653	36,341	105·86
4	Thána	3,576	246	456,673	424,235	880,908	32,198	36·55	12,165	11,057	23,222	110·02
5	Kolába	2,169	274	295,085	298,972	594,057	25,783	43·41	8,754	8,110	16,864	107·94
6	City of Bombay	22·5	41,483	629,854	333,509	963,363	19,360	20·10	17,692	13,808	31,500	128.13
	Central Registration District.											
7	Ahmednagar...	6,613	142	475,163	468,828	943,991	41,775	44·25	17,713	16,609	34,322	106·65
8	Poona	5,366	198	538,238	526,568	1,064,806	37,770	35·47	18,090	16,748	34,838	108·01
9	Sholápur	4,556	169	391,311	376,706	768,017	30,235	39·37	13,684	13,215	26,899	103 55
10	Sátára	4,818	224	538,841	541,957	1,080,798	44,714	41·37	17,999	17,406	35,405	103·41
11	Ratnágiri	3,989	302	553,368	650,234	1,203,602	44,137	36·67	12,874	13,130	25,994	98.13
	Southern Registration District.											
12	Belgaum	4,613	204	478,458	463,490	941,948	40,509	43·01	16,095	15,689	31,784	102·59
13	Dhárwár	4,604	223	519,995	505,091	1,025,086	41,901	40·88	15,373	15,044	30,417	102·19
14	Bijápur	5,707	151	433,866	429,061	862,927	34,533	40·02	12,320	11,995	24,315	102·79
15	Kánara	3,946	109	220,065	210,369	430,434	14,227	33·05	6,574	6,131	12,705	107·23
	Gujarát Registration District.											
16	Surat	1,651	396	326,839	327,135	653,974	23,994	36·69	10,533	10,285	20,818	102·41
17	Broach	1,468	209	158,219	148,448	306,667	13,612	44·39	5,669	5,670	11,339	99·98
18	Kaira	1,596	433	370,174	321,468	691,642	29,433	42·56	12,101	11,261	23,362	107·46
19	Panch Mahális	1,606	201	165,902	156,751	322,653	16,154	50·07	3,609	3,405	7,014	105 99
20	Ahmedabad	3,824	216	432,124	395,213	827,337	35,036	42·34	14,773	13,661	28,434	108·13
	Sind Registration District.											
21	Karáchi	11,782	44	290,390	225,943	516,333	11,214	21·72	5,481	4,483	9,964	122·26
22	Hyderabad	4,417	138	337,526	273,584	611,110	11,343	18·56	4,923	3,757	8,680	131·04
23	Thar and Párkar	13,638	32	241,274	192,091	433,365	10,133	23·38	3,819	2,980	6,799	128·15
24	Nawabshah	3,867	116	247,719	200,759	448,478	8,212	18·31	3,310	2,761	6,071	119·88
25	Lárkhána	5,053	131	359,207	301,621	660,828	16,294	24·66	7,179	6,489	13,668	110·63
26	Sukkur	5,535	103	312,732	260,803	573,535	13,952	24·32	5,851	5,400	11,251	108·35
27	Upper Sind Frontier ...	2,644	99	145,541	117,445	262,986	5,828	22·16	2,143	1,877	4,020	114·17
	Total for the Presidency...	122,978	159	10,188,455	9,398,928	19,587,383	733,076	37·43	298,988	278,516	577,504	107·35

1	2	9										10		
Number.	Districts.	DEATHS PER 1,000 OF POPULATION FROM										MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	All causes.					
										Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.														
1	East Khándesh	·67	·44	·55	15·76	2·03	4·09	·28	14·76	39·40	37·75	38·58	37·61	36·51	37·06
2	West Khándesh	·07	·10	...	18·21	·77	2·67	·29	15·04	37·56	36·70	37·15	35·26	34·24	34·75
3	Násik	1·35	·61	1·23	16·05	1·64	4·24	·32	14·77	41·07	39·35	40·21	37·08	35·59	36·34
4	Thána	1·32	·36	·59	15·51	·86	·86	·55	6·31	26·63	26·06	26·36	27·24	27·22	27·23
5	Kolába	·89	·71	1·17	14·41	1·30	1·44	·39	8·08	29·66	27·12	28·39	28·86	27·44	28·15
6	City of Bombay	·23	·26	3·05	2·93	3·17	10·52	·61	11·93	28·09	41·40	32·70	31·31	44·84	36·10
	Central Registration District.														
7	Ahmednagar	2·95	·15	·24	12·56	4·49	4·79	·24	10·94	37·28	35·43	36·36	29·41	27·54	28·46
8	Poona	2·70	·14	1·70	13·34	3·72	3·81	·29	7·02	33·62	31·81	32·72	29·94	28·61	29·28
9	Sholápur	2·35	·51	·01	15·18	6·61	1·93	·27	8·16	34·97	35·08	35·02	33·22	33·01	33·11
10	Sátára	3·45	·06	1·88	11·76	4·71	1·53	·41	8·96	33·40	32·12	32·76	28·66	28·00	28·33
11	Ratnágiri	·03	·18	·04	10·31	3·07	3·15	·41	4·41	23·26	20·18	21·60	23·27	19·55	21·26
	Southern Registration District.														
12	Belgaum	1·13	·24	3·17	6·14	4·58	3·67	·58	14·22	33·64	33·85	33·74	30·90	31·30	31·09
13	Dhárwár	·13	·55	3·01	7·21	1·35	4·00	·37	13·04	29·56	29·78	29·67	37·48	37·64	37·56
14	Bijápur	·81	·16	1·59	9·47	3·26	2·54	·37	9·96	28·39	27·96	28·18	34·74	34·57	34·65
15	Kánara	·03	·36	·04	12·46	2·53	1·00	·49	12·62	29·87	29·14	29·52	31·17	30·26	30·73
	Gujarát Registration District.														
16	Surat	·64	·03	1·42	16·89	·74	7·02	·26	4·83	32·23	31·44	31·83	28·78	27·98	28·38
17	Broach	1·05	...	·04	22·64	·59	5·90	·44	6·31	35·83	38·20	36·97	35·61	36·24	35·92
18	Kaira	·03	...	·07	13·72	1·61	9·51	·52	8·32	32·69	35·03	33·78	32·47	34·21	33·28
19	Panch Mahális	...	...	·02	17·17	·08	·84	·47	3·15	21·75	21·72	21·73	22·29	22·64	22·46
20	Ahmedabad	·01	...	·13	24·45	·43	4·55	·51	4·29	34·18	34·56	34·37	36·26	37·28	36·74
	Sind Registration District.														
21	Karáchi	...	·06	2·09	9·49	·37	2·12	·39	4·78	18·87	19·84	19·30	20·93	21·48	21·17
22	Hyderabad	...	·02	·50	11·16	·22	·64	·25	1·41	14·53	13·73	14·20	16·39	15·65	16·06
23	Thar and Párkar	...	...	·30	14·49	·07	·30	·34	·19	15·83	15·51	15·69	17·07	17·69	17·69
24	Nawabshah	·00	·02	·04	12·46	·10	·19	·39	·33	13·36	13·75	13·54	16·68	16·17	16·45
25	Lárkhána	·00	·02	·00	19·42	·03	·04	·47	·71	20·00	21·51	20·68	21·20	21·44	21·15
26	Sukkur	...	·01	·01	16·90	·19	·25	·33	1·93	18·71	20·71	19·62	19·92	20·73	20·31
27	Upper Sind Frontier ...	...	·02	...	14·56	·04	·00	·24	·43	14·72	15·98	15·29	14·19	14·99	14·55
	Total for the Presidency...	·91	·21	1·02	13·23	2·19	3·37	·39	8·15	29·34	29·63	29·48	29·48	29·53	29·51

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1914.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	East Khándesh	2,854	2,718	3,305	3,820	4,108	2,639	3,040	4,501	3,994	3,257	2,816	2,852	39,904	1
2	West Khándesh	1,946	1,800	2,214	2,168	1,983	1,219	1,353	1,735	1,652	1,438	1,867	2,149	21,574	2
3	Násik	2,953	2,502	2,804	2,891	3,026	2,863	3,073	3,717	3,349	2,956	3,033	3,174	36,341	3
4	Thána	2,675	2,123	2,246	1,845	1,967	1,941	1,690	2,059	1,602	1,472	1,766	1,831	23,223	4
5	Kolába	1,852	1,591	1,732	1,747	1,435	1,225	1,321	1,380	1,236	1,114	984	1,247	16,864	5
6	City of Bombay	2,943	2,870	3,462	3,898	3,328	2,353	2,331	2,665	2,127	1,919	1,742	18,62	31,500	6
	Central Registration District.														
7	Ahmednagar	1,959	1,819	2,221	3,102	3,358	4,147	4,710	3,988	2,740	2,326	2,081	1,871	34,323	7
8	Poona	2,526	2,160	2,208	2,494	3,363	3,510	3,858	3,823	3,339	2,882	2,379	2,296	34,838	8
9	Sholápur	1,572	1,358	1,551	2,242	2,752	2,081	3,221	3,693	3,058	2,195	1,630	1,546	26,899	9
10	Sátára	2,354	1,812	1,919	2,496	4,490	3,616	3,177	3,682	3,791	3,380	2,466	2,223	35,405	10
11	Ratnágiri	2,680	2,275	2,228	2,123	1,958	1,823	2,178	2,392	2,009	1,996	2,055	2,277	25,994	11
	Southern Registration District.														
12	Belgaum	2,237	2,111	2,350	2,252	2,704	2,895	2,698	3,073	3,402	3,242	2,529	2,241	31,784	12
13	Dhárwár	3,494	2,744	2,583	2,333	2,146	2,028	2,190	2,387	2,681	2,860	2,582	2,339	30,417	13
14	Bijápur	2,125	1,638	1,499	1,503	1,768	1,780	2,282	2,779	2,828	2,685	1,870	1,558	24,315	14
15	Kánara	1,381	1,125	1,164	952	841	865	973	1,147	1,025	999	1,132	1,101	12,705	15
	Gujarát Registration District.														
16	Surat	2,025	1,729	1,880	1,660	1,486	1,179	1,231	1,640	1,928	1,846	1,964	2,270	20,818	16
17	Broach	1,213	903	826	780	768	587	652	1,018	1,178	1,245	1,048	1,171	11,339	17
18	Kaira	1,775	1,593	1,850	1,856	2,000	1,720	1,787	2,166	2,399	2,464	1,854	1,898	23,362	18
19	Panch Maháls	655	589	696	605	550	440	412	529	600	616	631	691	7,014	19
20	Ahmedabad...	2,737	2,451	2,672	2,665	2,267	1,727	1,533	2,373	2,505	2,509	2,309	2,686	28,434	20
	Sind Registration District.														
21	Karáchi	1,215	1,005	1,145	1,017	781	600	593	593	638	578	733	1,066	9,964	21
22	Hyderabad	923	746	766	683	571	472	462	499	513	741	928	1,376	8,650	22
23	Thar and Párkar	969	902	934	663	564	426	388	274	350	321	424	584	6,799	23
24	Nawabshah	825	596	578	452	433	334	344	317	333	461	621	777	6,071	24
25	Lárkhána	1,918	1,300	1,234	991	692	785	729	763	865	1,127	1,640	1,624	13,668	25
26	Sukkur	1,093	720	692	663	686	690	701	668	858	1,116	1,707	1,657	11,251	26
27	Upper Sind Frontier ...	435	328	280	245	310	261	243	214	283	421	546	454	4,020	27
	Total for the Presidency...	51,384	43,513	47,039	48,096	50,315	44,206	47,170	54,125	51,283	48,166	45,337	46,870	577,504	
	Ratio of deaths per 1,000 in each month... ...	2·62	2·22	2·40	2·46	2·57	2·26	2·41	2·76	2·62	2·46	2·31	2·39	29·48	

FORM No. IV.

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	East Khándesh	7,147	5,809	6,334	6,492	957	954	354	406
2	West Khándesh	3,650	3,230	3,656	3,749	563	531	187	198
3	Násik	5,557	4,603	4,715	4,797	1,201	1,176	535	543
4	Thána	2,598	2,191	1,856	1,867	700	699	370	353
5	Kolába	2,261	1,876	1,609	1,521	349	391	269	237
6	City of Bombay	3,911	3,597	1,861	1,890	543	649	549	485
	Central Registration District.								
7	Ahmednagar	5,142	4,148	4,739	4,560	838	794	299	346
8	Poona	4,808	3,709	3,598	3,440	880	875	520	563
9	Sholápur	3,766	3,172	3,754	3,660	576	582	334	337
10	Sátára	4,204	3,451	3,848	3,837	1,183	1,174	607	657
11	Ratnágiri	2,341	1,961	1,851	1,891	532	632	377	392
	Southern Registration District.								
12	Belgaum	3,328	2,750	3,460	3,720	1,227	1,288	607	566
13	Dhárwár	3,821	2,925	2,826	2,872	923	1,016	590	677
14	Bijápur	2,821	2,233	3,002	2,957	739	807	337	358
15	Kánara	1,667	1,389	624	617	211	220	162	155
	Gujarát Registration District.								
16	Surat	2,515	2,278	1,900	1,802	617	679	336	320
17	Broach	1,653	1,505	1,302	1,268	240	278	101	125
18	Kaira	2,931	3,109	2,821	2,673	495	427	251	182
19	Panch Mahás	999	951	651	630	194	186	54	70
20	Ahmedabad	3,858	3,513	2,853	2,760	523	512	256	255
	Sind Registration District.								
21	Karáchi	1,372	1,200	631	629	283	269	204	207
22	Hyderabad	1,015	866	485	487	206	203	200	148
23	Thar and Párkar	730	654	368	300	180	149	123	84
24	Nawabshah	630	631	383	311	160	177	130	110
25	Lárkhána	1,583	1,553	811	843	384	385	233	177
26	Sukkur	1,692	1,636	964	921	304	291	147	158
27	Upper Sind Frontier ...	589	541	433	403	142	103	68	50
	Total for the Presidency ...	76,589	65,481	61,335	60,897	15,150	15,447	8,200	8,159
	Population according to Census of 1911	333,992	333,705	1,033,360	1,066,128	1,286,872	1,204,044	1,129,222	893,170
	Ratios per 1,000 living ...	229·31	196·22	59·35	57·12	11·77	12·83	7·26	9·13

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1914.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	No.
265	385	653	1 057	853	947	964	600	970	617	2,052	2,088	1
120	192	382	548	508	447	508	315	505	312	948	1,025	2
353	524	917	1,283	1,284	1,154	1,208	836	1,028	736	1,890	2,001	3
349	442	1,120	1,320	1,354	1,199	1,272	751	1,030	749	1,516	1,486	4
272	342	744	864	826	686	784	539	824	772	816	882	5
1,332	1,080	3,223	2,088	2,174	1,095	1,522	805	1,222	754	1,355	1,365	6
466	659	1,031	1,225	859	776	1,019	746	1,405	1,282	1,915	2,073	7
496	755	1,271	1,532	1,411	1,294	1,338	940	1,202	952	2,566	2,688	8
361	500	740	832	716	738	722	634	770	668	1,945	2,092	9
457	673	1,241	1,471	1,304	1,215	1,241	941	1,259	1,003	2,655	2,984	10
513	623	838	944	974	1,068	915	737	1,233	1,025	3,300	3,847	11
452	512	1,127	1,281	1,100	1,081	1,203	861	1,202	931	2,389	2,699	12
393	582	1,190	1,602	1,150	1,176	1,160	952	1,207	1,047	2,113	2,195	13
245	344	697	1,019	621	715	841	686	1,032	769	1,985	2,107	14
174	244	565	809	779	582	706	457	641	519	1,045	1,139	15
250	284	718	1,037	785	915	867	641	866	625	1,679	1,704	16
88	113	378	439	353	453	436	363	445	356	673	770	17
188	187	914	785	998	882	1,057	754	994	703	1,457	1,559	18
76	77	253	282	295	397	334	230	362	209	391	442	19
386	304	1,380	1,368	1,442	1,234	1,370	1,049	1,253	998	1,462	1,618	20
221	204	673	592	605	396	499	283	362	215	631	488	21
207	195	598	556	606	413	593	324	440	209	573	356	22
173	126	505	424	519	370	439	290	367	241	415	342	23
151	145	374	399	387	295	412	250	291	170	392	273	24
288	306	749	964	780	705	779	478	571	331	1,001	747	25
157	228	387	576	470	428	497	318	454	244	779	670	26
57	63	135	180	134	150	168	111	141	71	276	205	27
8,490	10,089	22,803	25,407	23,282	20,801	22,854	15,891	22,076	16,499	38,209	39,845	
852,854	752,848	1,903,139	1,801,211	1,562,195	1,370,275	1,064,455	949,249	611,654	564,582	436,814	476,708	
9·95	13·40	11·98	14·11	14·90	15·18	21·47	16·74	36·09	29·22	87·47	83·58	

ANNUAL FORM NO. V.—DEATHS *registered according to* CLASSES

1	2	3						
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.						
		Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	East Khándesh	99,521	902,131	9,361	748	371	22,082	1,034,214
2	West Khándesh	31,323	474,200	3,796	586	233	70,542	580,680
3	Násik	47,705	843,705	7,902	1,867	840	1,625	903,644
4	Thána	41,979	786,925	2,985	43,341	5,105	573	880,908
5	Kolába	28,876	560,266	1,411	1,149	303	2,052	594,057
6	City of Bombay	179,346	664,042	20,460	41,273	50,931	7,311	963,363
	Central Registration District.							
7	Ahmednagar	47,959	855,676	15,284	28,622	222	1,228	943,991
8	Poona	48,936	991,738	11,731	8,280	2,695	1,476	1,064,806
9	Sholápur	55,377	703,215	7,643	1,412	334	36	768,017
10	Sátára	36,688	1,028,176	14,883	815	209	27	1,080,798
11	Ratnágiri	85,303	1,110,594	1,913	5,678	46	68	1,203,602
	Southern Registration District.							
12	Belgaum	77,075	817,797	41,533	5,313	159	71	941,948
13	Dhárwár	136,943	872,885	10,413	4,526	218	101	1,025,086
14	Bijápur	101,069	757,542	3,235	1,052	28	1	862,927
15	Kánara	28,731	383,624	1,251	16,729	14	85	430,434
	Gujarát Registration District.							
16	Surat	55,394	571,834	9,821	1,050	11,783	4,092	653,974
17	Broach	67,752	192,964	3,053	1,052	2,770	39,076	306,667
18	Kaira	63,280	598,165	6,609	23,490	81	17	691,642
19	Panch Mahals	22,273	274,339	1,542	1,810	204	22,485	322,653
20	Ahmedabad	92,018	693,209	35,899	3,584	1,639	988	827,337
	Sind Registration District.							
21	Karáchi	396,334	111,748	650	3,625	2,202	1,774	516,333
22	Hyderabad							611,110
23	Thar and Párkar ...	1,035,437	442,801	695	218	102	13,670	433,365
24	Nawabshah							448,478
25	Lárkhána	557,517	101,687	1	21	6	1,596	660,828
26	Sukkur	414,671	155,156	3	207	96	3,402	573,535
27	Upper Sind Frontier	235,970	26,495	...	10	5	506	262,986
	Total for the Presidency ...	3,987,477	14,920,914	212,074	191,438	80,596	194,884	19,587,383

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

in the BOMBAY PRESIDENCY *during the year 1914.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
2,735	37,146	2	17	2	2	39,904	27·47	41·18	·21	22·73	5·39	·09	38·58
879	20,681	6	7	1	...	21,574	28·06	43·61	1·58	11·94	...	·01	37·15
1,724	34,513	44	42	11	7	36,341	36·14	40·91	5·57	22·50	13·09	4·31	40·22
1,197	21,035	16	897	57	20	23,222	28·51	26·73	5·36	20·69	11·16	34·90	26·36
788	15,991	2	33	2	48	16,864	27·32	28·54	1·41	28·72	6·60	23·39	28·39
7,305	20,203	1,213	1,415	1,137	227	31,500	40·73	30·42	59·28	34·28	22·32	31·05	32·70
1,546	32,549	28	125	9	65	34,322	32·24	38·04	1·83	5·38	40·54	52·93	36·36
1,497	33,111	35	123	44	28	34,838	30·59	33·39	2·98	14·95	16·33	18·97	32·72
1,510	25,169	95	23	3	99	26,899	27·27	35·79	12·43	16·29	8·98	2,750·00	35·02
1,076	33,956	351	11	6	5	35,405	29·32	33·03	23·58	13·50	28·71	185·18	32·75
1,929	23,948	17	100	...	...	25,994	22·61	21·56	8·89	17·61	...	...	21·60
2,406	27,776	1,454	144	3	1	31,784	31·22	33·96	35·01	27·10	18·87	14·08	33·74
3,956	26,140	233	86	1	1	30,417	28·89	29·95	22·38	19·00	4·59	9·90	29·67
2,439	21,799	60	17	...	...	24,315	24·13	28·78	18·55	16·16	...	...	28·18
679	11,683	35	307	...	1	12,705	23·63	30·45	27·98	18·35	...	11·76	29·52
1,143	15,712	182	24	229	3,528	20,818	20·63	27·48	18·53	22·86	19·43	862·17	31·83
2,246	7,509	52	13	66	1,453	11,339	33·15	38·91	17·03	12·36	23·83	37·18	36·97
1,958	21,086	109	202	...	7	23,362	30·94	35·25	16·49	8·60	...	411·76	33·78
484	4,734	35	8	3	1,750	7,014	21·73	17·26	22·70	4·42	14·71	77·83	21·73
2,990	24,393	896	75	23	57	28,434	32·49	35·19	24·95	20·93	14·03	57·69	34·37
6,069	3,767	...	75	36	17	9,964	15·31	33·71	...	20·69	16·35	9·58	19·30
5,275	3,320	1	4	2	78	8,680	12·56	19·05	20·14	16·13	19·61	6·80	14·20
3,422	3,358	13	...	...	6	6,799							15·69
4,305	1,757	...	...	...	9	6,071							13·54
11,361	2,304	...	...	...	3	13,668	20·38	22·66	...	...	...	1·25	20·68
6,925	4,310	...	...	...	16	11,251	16·70	27·78	...	...	...	4·70	19·62
3,437	583	...	...	...	...	4,020	14·57	22·00	...	...	...	...	15·29
81,281	478,533	4,879	3,748	1,635	7,428	577,504	20·38	32·07	23·01	19·58	20·29	38·11	29·48

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	East Khándesh ...	903,053	641	456	249	14,721	1,894	3,692	1	5	195
2	West Khándesh ...	538,084	40	56	...	10,302	414	1,357	1	7	106
3	Násik	815,511	1,010	494	585	13,626	1,248	3,377	7	13	178
4	Thána	791,861	1,103	165	261	12,989	560	632	24	24	244
5	Kolába	567,043	499	389	529	8,378	750	819	2	2	166
	Central Registration District.										
6	Ahmednagar ...	888,096	2,637	141	21	11,318	4,140	4,155	...	3	169
7	Poona	859,267	2,373	103	1,115	12,214	2,534	2,923	1	6	198
8	Sholápur	660,338	1,322	67	...	9,203	3,868	1,057	6	2	118
9	Sátára	1,025,700	3,534	60	1,895	12,303	4,729	1,501	11	15	287
10	Ratnágiri	1,136,710	37	197	47	11,812	3,544	3,547	13	8	218
	Southern Registration District.										
11	Belgaum	869,243	928	206	2,427	5,543	4,074	3,140	17	15	414
12	Dhárwár	885,871	115	542	2,507	6,843	1,127	3,031	18	7	254
13	Bijápur	792,582	648	140	1,230	7,914	2,626	1,884	12	18	216
14	Kánara	382,278	11	146	18	5,013	918	368	9	6	159
	Gujarát Registration District.										
15	Surat	512,580	412	14	588	10,061	305	3,407	9	5	112
16	Broach	242,979	176	...	8	6,251	128	1,105	3	5	61
17	Kaira	594,309	...	...	46	8,303	912	5,601	3	19	181
18	Panch Mahális ...	291,248	...	...	7	5,103	15	248	2	4	78
19	Ahmedabad ...	568,530	3	...	102	14,967	150	1,202	10	26	164
	Sind Registration District.										
20	Karáchi	351,401	...	16	28	3,453	24	52	3	...	67
21	Hyderabad... ...	523,747	...	...	14	5,634	36	50	5	2	54
22	Thar and Párkar ...	424,563	...	...	56	5,957	27	43	2	...	44
23	Nawabshah ...	436,579	1	10	12	5,410	39	43	4	2	110
24	Lárkhána	628,336	...	10	...	12,074	15	23	5	6	179
25	Sukkur	468,207	...	...	...	7,379	38	40	3	3	112
26	Upper Sind Frontier.	251,646	...	4	...	3,608	7	1	6	5	33
	Total of Districts ...	16,407,762	15,490	3,216	11,746	230,379	34,122	43,298	177	208	4,117
	B.—TOWNS.										
	East Khándesh District.										
1	Jalgaon	17,195	...	...	...	178	66	67	...	...	3
2	Bhusáwal	18,312	4	...	5	171	37	72	...	...	19
3	Chopda	17,008	...	1	...	228	15	44	...	...	2
4	Dharangaon ...	15,607	6	...	6	129	15	79	...	...	5
5	Párola	14,177	...	...	...	273	3	56	...	1	6
6	Amalner	13,232	...	...	...	154	28	87	...	...	5
7	Erandol	13,144	15	2	...	208	15	64	...	...	5

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1914.*

			11	12	13										14
RIES.					RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
20	13	234	13,719	35,606	·71	·50	·28	16·30	2·10	4·09	·26	15·19	39·43	37·06	1
32	7	153	8,208	20,530	·07	·10	...	19·15	·77	2·52	·28	15·26	38·15	35·09	2
53	6	257	12,289	32,887	1·24	·61	·72	16·75	1·53	4·15	·31	15·11	40·42	36·07	3
139	6	437	4,461	20,608	1·39	·21	·33	16·40	·71	·80	·55	5·63	26·02	26·74	4
37	7	214	4,550	16,128	·88	·69	·93	14·78	1·32	1·44	·38	8·02	28·44	28·19	5
38	8	218	10,190	32,820	2·97	·16	·02	12·74	4·66	4·68	·25	11·47	36·95	28·97	6
46	10	261	5,851	27,374	2·76	·12	1·30	14·21	2·95	3·40	·30	6·81	31·85	27·97	7
25	2	153	4,253	19,923	2·00	·10	...	13·94	5·86	1·60	·23	6·44	30·17	29·44	8
79	26	418	9,371	33,811	3·45	·06	1·85	11·99	4·61	1·46	·41	9·13	32·96	28·15	9
231	5	475	4,954	24,613	·03	·17	·04	10·39	3·12	3·12	·42	4·36	21·65	21·32	10
44	12	502	12,669	29,489	1·07	·24	2·79	6·38	4·69	3·61	·58	14·57	33·92	31·35	11
33	4	316	11,482	25,963	·13	·61	2·83	7·72	1·27	3·42	·36	12·96	29·31	37·60	12
30	5	281	7,758	22,481	·82	·18	1·55	9·99	3·31	2·38	·35	9·79	28·36	33·66	13
17	...	191	4,885	11,550	·03	·38	·05	13·11	2·40	·96	·50	12·78	30·21	32·09	14
28	3	157	2,114	17,058	·80	·03	1·15	19·63	·59	6·65	·31	4·12	33·28	29·81	15
26	...	95	1,390	9,153	·72	...	·03	25·73	·53	4·55	·39	5·72	37·67	36·95	16
76	20	299	4,617	19,778	...	...	·08	13·97	1·53	9·42	·50	7·77	33·27	32·61	17
48	3	135	780	6,288	...	...	·02	17·52	·05	·85	·46	2·68	21·58	22·37	18
102	10	312	1,155	17,891	·01	...	·18	26·33	·26	2·11	·55	2·03	31·47	32·08	19
46	2	118	182	3,873	...	·05	·08	9·83	·07	·15	·34	·52	11·02	12·67	20
50	...	111	177	6,022	...	...	·03	10·75	·07	·10	·21	·34	11·50	13·69	21
96	...	142	80	6,305	...	...	·13	14·03	·06	·11	·33	·19	14·85	17·47	22
53	1	170	146	5,831	·00	·02	·03	12·39	·09	·10	·39	·33	13·35	16·45	23
110	...	300	267	12,689	...	·02	...	19·22	·02	·04	·48	·42	20·19	20·96	24
37	1	156	96	7,709	...	...	...	15·76	·08	·09	·33	·21	16·46	18·24	25
17	...	61	30	3,711	...	·02	...	14·34	·03	·00	·24	·12	14·75	14·06	26
1,513	151	6,166	125,674	470,091	0·94	·20	·71	14·04	2·08	2·64	·38	7·66	28·65	28·20	
1	...	4	218	533	...	...	...	10·35	3·84	3·90	·23	12·68	31·00	32·46	1
...	...	19	290	598	·22	...	·27	9·34	2·02	3·93	1·04	15·84	32·66	...	2
...	...	2	79	369	...	·06	...	13·41	·88	2·59	·12	4·64	21·70	19·38	3
...	...	5	211	451	·38	...	·38	8·27	·96	5·06	·32	13·52	29·89	...	4
...	...	7	156	495	...	...	...	19·26	·21	3·95	·49	11·00	34·91	...	5
...	1	6	196	471	...	...	...	11·64	2·12	6·57	·45	14·81	35·59	...	6
2	...	7	175	486	1·14	·15	...	15·83	1·14	4·87	·53	13·31	36·97	...	7

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	East Khándesh—District—continued.										
8	Nasirabad	13,033	...	...	305	39	23	47	2	...	...
9	Chálisgaon	9,453	24	...	...	198	3	27	...	...	2
	West Khándesh. District.										
10	Dhulia	30,757	...	...	...	148	16	178	1	...	8
11	Nandurbár... ...	11,839	...	...	...	128	18	18	...	...	4
	Násik District.										
12	Násik	33,163	61	5	141	179	87	166	3	...	18
13	Yeola	16,275	...	49	...	197	51	135	...	...	5
14	Málegaon	19,542	53	...	...	332	34	62	...	...	2
15	Igatpuri	8,380	5	5	311	44	6	40	...	...	2
16	Manmád	6,947	88	...	58	100	22	7	...	...	1
17	Trimbak	4,078	...	...	...	18	9	23	...	1	2
18	Deolali Cantonment.	1,748	...	1	22	9	14	22	...	...	...
	Thána District.										
19	Thána	15,591	9	13	78	91	40	28	1	1	7
20	Bándra	22,885	3	29	66	36	55	38	3	...	18
21	Kurla	15,081	8	23	49	261	33	16	...	1	...
22	Bhiwandi	13,292	1	83	52	118	22	10	...	...	3
23	Kalyán	12,600	34	...	4	109	37	29	...	1	5
24	Bassein	9,598	7	1	6	57	15	8	1	...	3
	Kolába District.										
25	Alibág	3,358	35	5	37	20	4	6	...	...	1
26	Panvel	7,744	...	16	58	67	13	11	...	...	3
27	Mahád	7,164	...	14	...	70	6	11	...	1	3
28	Uran	8,748	...	...	72	31	1	7	...	...	...
29	City of Bombay ...	963,363	218	249	2,935	2,823	3,055	10,137	45	29	498
	Ahmednagar District.										
30	Ahmednagar ...	33,878	102	...	204	433	64	247	1	...	6
31	Sangamner... ...	14,269	45	...	1	98	31	87	...	...	1
32	Ahmednagar Cantonment.	7,748	1	...	1	12	1	33	...	...	...
	Poona District.										
33	Poona	126,201	324	41	421	1,285	1,266	785	...	...	25
34	Bárámati	10,190	9	...	1	146	17	16	...	...	2
35	Khed	8,056	55	...	...	69	11	13	...	...	2

VI—*continued.*

DIES.			11	12	13										14
					Ratio of Deaths per 1,000 of Population.										
Sanke-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
1	...	3	181	598	...	...	23·40	2·99	1·76	3·61	·23	13·89	45·88	42·00	8
...	...	2	43	297	2·54	..	...	20·94	·32	2·86	·21	4·55	31·42	...	9
...	...	9	333	684	...	...	...	4·82	·52	5·78	·29	10·82	22·23	30·20	10
1	...	5	191	360	...	...	...	10·81	1·52	1·52	·42	16·13	30·40	31·38	11
...	1	22	591	1,252	1·84	·15	4·25	5·40	2·62	5·01	·66	17·82	37·75	46·78	12
...	...	5	178	615	...	3·01	...	12·10	3·13	8·29	·31	10·94	37·78	29·35	13
...	...	2	119	602	2·71	...	...	16·99	1·74	3·17	·10	6·09	38·80	...	14
...	...	2	56	469	·60	·60	37·11	5·25	·72	4·77	·24	6·68	55·97	...	15
...	...	1	20	296	12·67	...	8·35	14·39	3·17	1·00	·14	2·88	42·61	...	16
1	...	4	54	108	...	...	...	4·41	2·21	5·64	0·98	13·24	26·48	...	17
...	...	...	44	112	...	·57	12·59	5·14	8·01	12·59	...	25·18	64·08	24·93	18
...	...	9	237	505	·58	·83	5·00	5·84	2·57	1·79	·58	15·20	32·39	34·08	19
1	1	23	356	606	·13	1·27	2·88	1·57	2·40	1·66	1·01	15·56	26·48	29·52	20
...	...	1	77	468	·53	1·52	3·25	17·31	2·18	1·06	·06	5·11	31·03	...	21
...	...	3	210	499	·07	6·24	3·91	8·88	1·66	·75	·23	15·80	37·54	...	22
...	...	6	97	316	2·70	...	·32	8·65	2·94	2·30	·47	7·70	25·08	29·34	23
...	1	5	121	220	·73	·10	·63	5·94	1·56	·83	·52	12·61	22·92	29·68	24
...	...	1	47	155	10·42	1·49	11·02	5·96	1·19	1·79	·30	13·99	46·16	33·31	25
...	...	3	80	248	...	2·07	7·49	8·65	1·68	1·42	·38	10·33	32·02	32·28	26
...	...	4	63	168	...	1·96	...	9·77	·84	1·54	·56	8·79	23·46	20·02	27
...	...	...	54	165	...	...	8·23	3·44	·11	·80	...	6·28	18·96	...	28
2	14	588	11,495	31,500	·23	·26	3·05	2·93	3·17	10·52	·61	11·93	32·70	36·10	29
...	...	7	70	1,127	3·01	...	6·02	12·78	1·89	7·29	·21	2·07	33·27	23·78	30
...	...	1	42	305	3·15	...	·07	6·87	2·17	6·10	·07	2·94	21·37	19·27	31
...	...	...	22	70	·13	...	·13	1·55	·13	4·26	...	2·84	9·04	9·36	32
1	3	29	996	5,147	2·57	·32	3·34	10·18	10·03	6·22	·23	7·89	40·78	41·49	33
...	...	2	46	237	·88	...	·10	14·33	1·67	1·57	·20	4·51	23·26	30·03	34
1	...	3	53	204	6·83	...	...	8·56	1·37	1·61	·37	6·58	25.32	20·13	35

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Poona District—continued.										
36	Lonávla	12,295	3	3	220	211	40	66	...	...	4
37	Junnar	8,820	87	...	1	62	10	19	...	...	...
38	Poona Cantonment	30,958	15	7	35	156	31	163	1	...	4
39	Kirkee do. ...	9,019	7	1	17	57	48	75	...	...	3
	Sholápur District.										
40	Sholápur	61,032	200	282	6	1,458	846	255	4	2	38
41	Bársi	18,097	109	23	...	349	96	83	...	...	2
42	Pandharpur ...	28,550	173	18	....	651	265	89	1	1	4
	Sátára District.										
43	Sátára	18,665	17	1	3	188	214	88	2	1	6
44	Wái	7,280	1	...	2	60	26	13	...	...	...
45	Karád	11,228	68	4	27	93	51	10	...	...	2
46	Ashta	9,351	67	...	96	53	53	...	...	2	6
47	Islámpur	8,574	43	...	10	8	15	38	...	...	5
	Ratnágiri District.										
48	Ratnágiri	15,822	...	9	...	112	46	37	...	...	2
49	Vengurla	17,294	...	12	...	160	50	74	1	...	5
50	Málvan	22,080	3	1	...	236	31	62	...	...	6
51	Chiplun	11,696	1	...	...	85	20	71	...	...	2
	Belgaum District.										
52	Belgaum	31,451	40	21	130	92	35	92	...	...	6
53	Gokák	7,326	27	1	3	45	64	54	...	1	11
54	Athni	13,849	39	...	34	50	90	73	...	...	9
55	Nipáni	10,779	31	...	391	40	34	63	1	...	6
56	Belgaum Cantonment.	9,300	4	...	3	17	21	33	...	...	3
	Dhárwár District.										
57	Dhárwár	29,370	...	1	182	139	83	198.	...	1	13
58	Hubli	61,440	11	...	48	177	69	500	1	1	22
59	Gadag-Bettigeri ...	30,429	10	16	172	145	72	243	1	3	12
60	Ránebennur ...	10,931	...	8	27	40	28	78	1	...	3
61	Navalgund ...	7,045	...	...	154	47	3	51	...	...	3
	Bijápur District.										
62	Bijápur	27,569	22	...	...	75	91	162	3	...	22
63	Bágalkot	17,294	21	...	...	71	62	88	...	...	5
64	Guledgudd ...	15,249	9	...	24	69	31	28	1	...	7
65	Ilkal	10,233	...	...	122	42	5	29	1	...	1

VI—*continued.*

			11	12	13										14
RIES.					Ratio of Deaths per 1,000 of Population.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
2	...	6	133	682	·24	·24	17·89	17·16	3·25	5·37	·49	10·82	55·47	20·98	36
...	...	...	32	211	9·86	...	·11	7·03	1·13	2·16	...	3·63	23·92	22·11	37
...	...	5	275	687	·48	·23	1·13	5·04	1·00	5·27	·16	8·88	22·19	23·10	38
...	...	3	88	296	·78	·11	1·88	6·32	5·32	8·32	·33	9·76	32·82	29·38	39
2	...	46	1309	4,402	2·27	4·62	·10	23·89	13·86	4·18	·75	21·45	72·12	59·72	40
1	...	3	409	1,072	6·02	1·27	...	19·28	5·30	4·59	·17	22·60	59·23	52·00	41
1	...	7	299	1,502	6·06	0·63	...	22·80	9·28	3·12	·25	10·47	52·61	49·47	42
1	...	10	114	635	·91	·05	·16	10·07	11·47	4·71	·54	6·11	34·02	42·81	43
...	...	...	32	134	·14	...	·27	8·24	3·57	1·79	...	4·40	18·41	46·23	44
3	...	5	37	295	6·06	·36	2·40	8·28	4·54	·89	·44	3·30	26·27	20·04	45
...	...	8	93	370	7·16	...	10·27	5·67	5·67	...	·86	9·94	39·57	13·80	46
...	...	5	41	160	5·02	...	1·17	·93	1·75	4·43	·58	4·78	18·66	29·97	47
1	1	4	60	268	...	·57	...	7·08	2·91	2·34	·25	3·79	16·94	16·12	48
...	...	6	145	447	...	·69	...	9·25	2·89	4·28	·35	8·38	25·84	26·82	49
...	...	6	124	463	·14	·05	...	10·69	1·40	2·81	·27	5·61	20·97	18·38	50
...	...	2	24	203	·09	...	...	7·27	1·71	6·07	·17	2·05	17·36	21·03	51
...	...	6	256	672	1·27	·67	4·13	2·93	1·11	2·93	·19	8·14	21·37	30·02	52
1	...	13	110	317	3·69	·14	·41	6·14	8·74	7·37	1·77	15·02	43·27	69·45	53
...	1	10	184	480	2·82	...	2·45	3·61	6·50	5·27	·72	13·29	34·66	30·30	54
1	...	8	100	667	2·88	...	36·28	3·71	3·15	5·84	·74	9·28	61·88	19·73	55
...	...	3	78	159	·43	...	·32	1·83	2·26	3·55	·32	8·39	17·10	17·35	56
...	...	14	449	1,066	...	0·03	6·20	4·73	2·83	6·74	·48	15·29	36·30	35·12	57
...	3	27	748	1,580	·18	...	·78	2·85	1·12	8·14	·44	12·17	25·72	40·07	58
1	...	17	422	1,097	·33	·53	5·65	4·77	2·37	7·99	·56	13·87	36·05	40·59	59
1	...	5	220	406	...	·73	2·47	3·66	2·57	7·14	·46	20·13	37·14	46·27	60
...	...	3	47	305	...	...	21·86	6·67	·43	7·24	·43	6·67	43·30	32·46	61
1	1	27	256	633	·80	...	...	2·72	3·30	5·84	·99	9·28	2·95	33·46	62
...	...	5	276	523	1·21	...	...	4·11	3·59	5·09	·29	15·96	30·24	47·45	63
...	...	8	164	333	·59	...	1·57	4·52	2·03	1·84	·52	10·75	21·84	20·19	64
...	...	2	145	345	...	...	11·92	4·10	·49	2·83	·20	14·17	33·71	39·14	65

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Kánara District.										
66	Kárwár	18,045	...	2	...	119	89	14	...	1	3
67	Kumta	10,343	...	2	...	106	20	12	...	...	6
68	Gokarn ...	5,304	...	...	...	28	37	10	...	...	5
69	Honáwar ...	7,323	...	6	...	49	12	5	...	...	1
70	Bhatkal	7,141	...	...	...	47	11	20	...	...	2
	Surat District.										
71	Surat	114,733	...	8	62	786	134	930	...	1	9
72	Bulsár	15,972	7	...	151	91	19	154	...	...	5
73	Rander	10,689	...	...	127	108	23	97	...	...	1
	Broach District.										
74	Broach	43,353	128	...	3	347	34	524	1	2	20
75	Jambusar	8,991	6	...	1	147	14	107	...	...	3
76	Ankleshwár ...	11,344	12	...	...	199	5	75	...	...	4
	Kaira District.										
77	Kaira	7,297	...	...	...	83	12	133	...	...	4
78	Mehmadabad ...	6,330	...	...	...	59	8	30	...	...	2
79	Nadiád	27,145	18	...	...	465	33	280	2	1	7
80	Borsad	11,860	...	...	...	62	53	128	...	...	11
81	Anand	10,139	...	...	...	153	16	47	...	3	5
82	Umreth	13,651	...	...	...	72	30	150	...	2	12
83	Dakore	7,785	...	...	3	134	21	56	...	...	4
84	Kapadvanj	13,126	...	...	1	160	27	152	...	...	4
	Panch Mahâls District.										
85	Godhra	22,102	...	...	...	189	...	21	...	...	12
86	Dohad	9,303	...	...	1	247	10	3	...	1	4
	Ahmedabad District.										
87	Ahmedabad ...	214,000	3	...	4	4,487	168	2,279	3	2	87
88	Dhandhuka ...	8,040	...	...	...	172	14	61	1	...	3
89	Viramgám	20,769	...	...	...	302	19	135	...	...	7
90	Dholka	13,693	...	...	...	260	8	86	...	2	3
91	Ahmedabad Cantonment.	2,305	...	...	...	38	...	...	...	...	1
	Karáchi District.										
92	Karáchi	140,511	...	13	1,009	1,169	141	1,002	1	...	76
93	Tatta	11,161	...	...	2	159	4	12	...	...	1
94	Kotri	7,256	...	1	2	93	18	28	...	...	4
95	Karáchi Cantonment.	6,004	...	1	37	24	6	...	...	...	...

VI—*continued.*

			11	12	13										14
RIES.					RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	...	4	162	390	...	·11	...	6·59	4·93	·78	·22	8·98	21·61	19·45	66
1	...	7	143	290	...	·19	...	10·25	1·93	1·16	·68	13·83	28·04	28·93	67
1	...	6	115	196	...	...	...	5·28	6·97	1·89	1·13	21·68	36·95	37·33	68
...	...	1	53	126	...	·82	...	6·69	1·64	·68	·14	7·24	17·21	24·58	69
...	...	2	73	153	...	...	...	6·58	1·54	2·80	·28	10·22	21·43	19·86	70
...	...	10	861	2,791	...	·07	·54	6·85	1·17	8·11	·09	7·50	24·33	22·05	71
...	...	5	106	533	·44	...	9·46	5·69	1·19	9·64	·31	6·64	33·37	29·51	72
...	...	1	80	436	...	...	11·88	10·10	2·15	9·08	·09	7·48	40·78	...	73
3	2	28	454	1,518	2·95	...	·07	8·00	·78	12·09	·65	10·47	35·01	31·90	74
3	...	6	36	317	·67	...	·11	16·35	1·56	11·90	·67	4·00	35·26	30·07	75
1	...	5	55	351	1·06	...	...	17·54	·44	6·61	·44	4·85	30·94	...	76
1	1	6	62	296	...	...	...	11·37	1·64	18·23	·82	8·50	40·56	34·04	77
...	...	2	52	151	...	...	...	9·32	1·26	4·74	·32	8·21	23·85	...	78
1	...	11	319	1,126	·66	...	...	17·13	1·22	10·31	·41	11·75	41·48	46·10	79
...	...	11	123	377	...	...	...	5·23	4·47	10·79	·93	10·37	31·79	37·40	80
1	...	9	103	328	...	...	...	15·09	1·58	4·63	·89	10·16	32·35	...	81
...	...	14	253	519	...	...	...	5·27	2·20	10·99	1·03	18·53	38·02	...	82
...	...	4	74	292	...	...	·39	17·21	2·70	7·19	·51	9·51	37·51	...	83
...	...	4	151	495	...	...	·08	12·19	2·06	11·58	·30	11·50	37·71	34·70	84
...	...	12	150	372	...	...	...	8·55	...	·95	·54	6·79	16·83	16·86	85
...	...	5	88	354	...	...	·11	26·55	1·07	·32	·54	9·46	38·05	39·18	86
4	...	96	1,879	8,916	·01	...	·02	20·96	·79	10·65	·45	8·78	41·66	50·14	87
1	...	5	74	326	...	...	...	21·39	1·74	7·59	·62	9·20	40·54	...	88
...	...	7	255	718	...	...	...	14·54	·91	6·50	·34	12·28	34·57	37·10	89
1	...	6	182	542	...	...	...	18·99	·58	6·28	·44	13·29	39·58	42·03	90
...	...	1	2	41	...	...	...	16·48	...	...	·43	·87	17·78	10·98	91
1	...	78	2,096	5,508	...	·09	7·18	8·32	1·00	7·13	·55	14·92	39·20	43·78	92
...	...	1	110	288	...	...	·18	14·25	·36	1·08	·09	9·86	25·80	...	93
...	...	4	16	162	...	·14	·28	12·82	2·48	3·86	·55	2·21	22·33	...	94
...	...	...	65	133	...	·17	6·16	4·00	1·00	...	...	10·83	22·14	...	95

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*concluded.*										
	Hyderabad District.										
96	Hyderabad ...	69,140	...	12	285	1,046	96	331	...	...	39
97	Halla	5,853	...	...	...	79	...	1	...	...	1
98	Matiari	6,487	...	...	...	31	5	10	...	...	...
99	Hyderabad Cantonment.	5,883	...	...	3	32	...	...	...	...	...
	Thar and Párkar District.										
100	Umarkot	3,946	...	...	...	149	2	24	...	...	...
101	Mirpurkhas ...	4,856	...	...	73	175	...	62	...	...	3
	Nawabshah District.										
102	Nawabshah ...	1,886	...	...	...	25	1	...	...	...	3
103	Tando Adam ...	10,013	...	...	4	153	6	43	...	...	3
	Lárkhána District.										
104	Lárkhána	16,046	...	...	...	335	6	6	...	...	6
105	Kambar	6,286	...	...	...	141	...	...	...	...	1
106	Ratodero	5,411	...	...	...	165	...	...	...	...	1
107	Sehwan	4,749	...	...	1	115	...	...	...	...	1
	Sukkur District.										
108	Sukkur	34,916	...	1	2	614	19	43	...	...	17
109	Shikárpur	53,944	...	2	2	1,170	31	40	...	...	15
110	Rohri	9,919	...	...	1	275	20	21	...	...	2
111	Garhi Yasin ...	6,549	...	...	...	257	...	...	...	1	...
	Upper Sind Frontier District.										
112	Jacobabad	8,324	...	...	...	164	4	...	...	...	1
113	Jacobabad Cantonment.	3,016	...	...	...	57	...	...	...	...	1
	Total of Towns ...	3,179,621	2,289	993	8,314	28,785	8,839	22,643	83	63	1,278
	Total for the Presidency ...	19,587,383	17,779	4,209	20,060	259,164	42,961	65,941	260	271	5,395

N. B.—Districts A in this statement do not include the population or deaths of

VI—*concluded.*

RIES.			11	12	13										14
					Ratio of Deaths per 1,000 of Population.								From all Causes.		
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
...	1	40	601	2,411	...	·17	4·12	15·13	1·39	4·79	·58	8·69	34·87	43·78	96
...	...	1	7	88	...	...	...	13·50	...	·17	·17	1·20	15·04	...	97
...	...	...	40	86	...	...	...	4·79	·77	1·54	...	6·16	13·26	...	98
...	...	...	38	73	...	...	·51	5·44	...	...	...	6·46	12·41	...	99
...	...	...	3	178	...	...	...	37·76	·51	6·08	...	·76	45·11	37·89	100
2	...	5	1	316	...	...	15·03	36·04	...	12·77	1·03	·21	65·07	...	101
1	...	4	1	31	...	...	...	13·26	·53	...	2·12	·53	16·44	...	102
...	...	3	...	209	...	...	·40	15·28	·60	4·29	·30	...	20·87	...	103
...	...	6	169	522	...	...	...	20·88	·37	·37	·37	10·53	32·53	35·22	104
...	...	1	4	146	...	...	...	22·43	...	...	·16	·64	23·23	...	105
...	...	1	...	166	...	...	...	30·49	...	...	·18	...	30·68	...	106
...	...	1	28	145	...	...	·21	24·22	...	...	·21	5·90	30·53	...	107
...	...	17	129	825	...	·03	·06	17·58	·54	1·23	·49	3·70	23·63	24·88	108
...	...	15	848	2,108	...	·04	·04	21·69	·57	·74	·28	15·72	39·08	39·30	109
...	...	2	32	351	...	...	·10	27·72	2·02	2·12	·20	3·23	35·39	...	110
...	...	1	...	258	...	...	...	39·24	...	...	·15	...	39·39	...	111
...	...	1	81	250	...	...	...	19·70	·48	...	·12	9·73	30·03	24·97	112
...	...	1	1	59	...	...	...	18·90	...	...	·33	·33	19·56	...	113
49	31	1,504	34,046	107,413	·72	·31	2·61	9·05	2·78	7·12	·47	10·71	33·78	36·36	
1,562	182	7,670	159,720	577,504	·91	·21	1·02	13·23	2·19	3·37	·39	8·15	29·48	29·51	

Towns B. In all the other statements "Districts" include Towns.

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1914.*

No.	Districts.	Circles of Registration. Number in each District.	Circles of Registration. Number from which deaths from cholera were reported.	Villages. Number in each District.	Villages. Number from which deaths from cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Ratio of Deaths per 1,000 of Population. Male.	Ratio of Deaths per 1,000 of Population. Female.	Ratio of Deaths per 1,000 of Population. Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh ...	22	4	1,438	113	...	...	...	8	...	17	161	400	82	16	6	...	327	363	690	·65	·69	·67	1·72	1
2	West Khándesh ...	10	4	1,096	6	...	...	...	...	...	...	6	29	4	1	...	...	22	18	40	·08	·06	·07	1·49	2
3	Násik	19	16	1,649	148	...	10	19	10	135	266	266	291	130	59	29	2	788	629	1,217	1·29	1·40	1·35	1·79	3
4	Thána	17	17	1,643	121	...	...	...	...	182	385	169	168	26	32	123	80	635	530	1,165	1·39	1·25	1·32	·59	4
5	Kolába	14	7	1,461	36	...	...	1	118	131	146	73	49	8	8	...	...	242	292	534	·52	·97	·89	1·05	5
6	City of Bombay ...	1	1	1	1	4	...	4	7	7	26	45	104	16	2	1	2	130	88	218	·21	·26	·23	·60	6
	Central Registration District.																								
7	Ahmednagar	15	15	1,348	302	...	...	190	430	280	752	629	282	107	15	...	...	1,335	1,450	2,785	2·81	3·09	2·95	2·01	7
8	Poona	18	18	1,201	228	1	...	4	43	697	835	679	432	97	46	29	10	1,414	1,459	2,873	2·63	2·77	2·70	2·06	8
9	Sholápur	10	10	718	137	...	...	1	312	185	143	520	441	146	47	10	...	925	879	1,804	2·36	2·33	2·35	1·82	9
10	Sátára	19	18	1,346	295	...	...	...	153	1,507	1,109	362	316	218	60	1	4	1,920	1,810	3,730	3·56	3·34	3·45	1·92	10
11	Ratnágiri	15	8	1,311	10	...	...	...	3	...	10	26	2	...	...	...	...	13	28	41	·02	·04	·03	·14	11
	Southern Registration District.																								
12	Belgaum	15	13	1,070	104	...	21	...	7	212	427	155	98	87	68	13	...	563	506	1,069	1·18	1·09	1·13	2·10	12
13	Dhárwár	18	9	1,295	24	...	1	...	...	...	...	1	22	36	53	23	...	74	62	136	·14	·12	·13	1·71	13
14	Bijápur...	13	12	1,122	88	...	...	...	9	8	47	87	144	150	197	58	...	361	339	700	·83	·79	·81	1·48	14
15	Kánara.2	16	2	1,265	3	...	...	...	...	...	2	...	...	...	9	...	...	4	7	11	·02	·03	·03	·40	15
	Gujarát Registration District.																								
16	Surat	12	7	760	63	...	...	...	...	...	...	...	33	142	126	104	7	209	210	419	·64	·64	·64	·32	16
17	Broach...	9	7	409	35	74	108	16	9	46	14	8	42	9	1	...	...	165	157	322	1·04	1·06	1·05	·10	17
18	Kaira	15	1	586	1	...	...	...	...	...	4	...	...	14	...	...	...	9	9	18	·02	·03	·03	·44	18
19	Panch Mahális ...	17	..	660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	19
20	Ahmedabad	13	2	880	2	...	...	1	...	3	...	2	...	...	...	...	...	3	3	6	·01	·01	·01	·24	20
	Sind Registration District.																								
21	Karáchi	16	...	665	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·90	21
22	Hyderabad	11	...	864	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·87	22
23	Thar and Párkar ...	13	...	901	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·16	23
24	Nawabshah	9	1	721	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	·76	24
25	Lárkhána	15	...	737	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·00	...	·63	25
26	Sukkur...	12	...	684	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·44	26
27	Upper Sind Frontier	7	...	422	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·40	27
	Total for the Presidency.	361	172	26,253	1,718	80	116	236	1,109	3,493	4,183	3,189	2,853	1,278	740	397	105	8,950	8,829	17,779	·68	·94	·91	1·12	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1914.*

No.	Districts.	Circles of Registration. Number in each District.	Circles of Registration. Number from which deaths from Small-pox were reported.	Villages. Number in each District.	Villages. Number from which deaths from Small-pox were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Number of these Deaths among Children. Under 1 year.	Number of these Deaths among Children. Under 10 years.	Ratio of Deaths per 1,000 of Population. Male.	Ratio of Deaths per 1,000 of Population. Female.	Ratio of Deaths per 1,000 of Population. Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																										
1	East Khándesh ...	22	20	1,438	121	83	109	133	74	44	8	4	3	1	...	...	...	232	227	459	182	233	·44	·43	·44	·33	1
2	West Khándesh ...	10	8	1,096	25	10	12	13	8	5	4	2	1	1	...	...	...	27	29	56	16	25	·09	·10	·10	·04	2
3	Násik	19	16	1,649	185	108	101	92	85	44	38	23	7	6	8	11	31	265	289	554	203	288	·58	·67	·61	·36	3
4	Thána	17	16	1,643	85	40	60	63	67	49	17	5	7	2	3	...	1	169	145	314	90	188	·37	·34	·36	·27	4
5	Kolába	14	13	1,461	137	55	72	70	65	47	29	22	27	19	7	6	5	198	226	424	159	206	·67	·75	·71	·49	5
6	City of Bombay ...	1	1	1	1	15	26	48	55	35	17	11	9	9	...	10	14	144	105	249	60	82	·23	·31	·26	·64	6
	Central Registration District.																										
7	Ahmednagar	15	11	1,348	55	28	23	26	31	10	5	2	3	3	...	...	...	67	74	141	48	82	·14	·16	·15	·19	7
8	Poona	18	15	1,201	46	20	28	34	31	16	3	6	4	1	1	1	10	68	87	155	51	70	·12	·16	·14	·36	8
9	Sholápur	10	9	718	26	58	58	100	65	60	29	7	4	3	...	5	1	187	203	390	92	223	·48	·54	·51	·26	9
10	Sátára	19	12	1,346	26	17	10	16	13	2	3	3	2	2	...	...	...	29	36	65	26	32	·05	·07	·06	·12	10
11	Ratnágiri	15	14	1,311	78	15	17	26	28	26	33	18	12	14	4	12	14	107	112	219	72	80	·19	·18	·18	·28	11
	Southern Registration District.																										
12	Belgaum	15	12	1,070	71	25	40	57	36	28	19	15	2	1	2	2	1	120	108	228	76	167	·25	·23	·24	·14	12
13	Dhárwar...	18	13	1,295	162	82	85	83	80	82	50	47	11	7	13	11	16	285	282	567	149	360	·55	·56	·55	·14	13
14	Bijápur	13	9	1,122	48	53	20	17	16	14	9	2	7	2	...	...	...	65	75	140	44	98	·15	·18	·16	·22	14
15	Kánara	16	12	1,265	59	4	21	35	26	20	11	11	7	6	1	17	7	95	61	156	14	34	·43	·29	·36	·30	15
	Gujarát Registration District.																										
16	Surat	12	4	760	9	...	2	4	9	5	1	...	...	...	...	...	1	12	10	22	5	11	·04	·03	03	·24	16
7	Broach	9	...	409	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·05	17
18	Kaira	15	...	586	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	·09	18
19	Panch Mahális ...	7	...	660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·09	19
20	Ahmedabad	13	...	880	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·41	20
	Sind Registration District.																										
21	Karáchi	16	6	665	6	6	8	5	4	5	1	...	1	...	...	1	...	16	15	31	2	9	·06	·07	·06	·55	21
22	Hyderabad	11	2	864	2	1	...	2	4	5	...	...	...	...	...	...	...	3	9	12	...	1	·01	·03	·02	·59	22
23	Thar and Párkar ...	13	...	901	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·32	23
24	Nawabshah	9	2	721	2	...	...	...	6	...	...	1	...	2	1	...	...	3	7	10	1	...	·01	·03	·02	·29	24
25	Lárkhána...	15	2	737	4	8	...	1	1	...	...	...	...	...	...	...	...	4	6	10	...	...	·01	·02	·02	·10	25
26	Sukkur	12	2	684	2	...	...	..	2	1	...	...	...	...	...	...	...	2	1	3	...	...	·01	·00	·01	·11	26
27	Upper Sind Frontier	7	3	422	3	...	2	2	...	...	...	...	...	...	...	...	...	2	2	4	...	1	·01	·02	·02	·16	27
	Total for the Presidency.	361	202	26,253	1,153	628	694	831	708	498	277	179	107	79	40	66	101	2,100	2,109	4,209	1,290	2,160	·21	·22	·21	·32	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVER *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1914.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from fever were reported.	Number in each District.	Number from which deaths from fever were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	22	22	1,438	1,337	993	1,052	1,240	1,539	1,740	1,101	1,173	1,713	1,708	1,515	1,259	1,266	8,120	8,179	16,299	15·57	15·95	15 76	12·80	1
2	West Khándesh ...	10	10	1,096	1,071	935	828	1,002	921	867	588	620	859	836	747	1,115	1,260	5,229	5,319	10,573	17·12	18·61	18·21	16·38	2
3	Násik	19	19	1,649	1,481	1,418	1,089	1,131	1,230	1,219	993	1,003	1,290	1,178	1,121	1,376	1,462	7,416	7,089	14,505	16·19	15·80	16·05	13·44	3
4	Thána	17	17	1,643	1,534	1,820	1,392	1,436	1,123	1,047	854	822	1,035	984	878	1,079	1,131	7,082	6,579	13,661	15·52	15·50	15·51	16·74	4
5	Kolába	14	14	1,461	1,353	1,070	894	803	759	684	536	613	641	646	623	568	739	4,418	4,148	8,566	14·97	13·87	14·41	15·29	5
6	City of Bombay — *Central Registration District.*	1	1	1	1	312	294	336	306	251	189	195	236	201	193	150	160	1,788	1,035	2,823	2·84	3·10	2·93	3·14	6
7	Ahmednagar ...	15	15	1,348	1,277	944	735	761	964	1,135	1,211	1,439	1,340	954	848	908	722	6,153	5,708	11,861	12·95	12·17	12·56	10·08	7
8	Poona	18	18	1,201	1,060	1,231	1,103	968	1,161	1,313	1,203	1,321	1,359	1,335	1,205	973	978	7,359	6,841	14,200	13·67	12·99	13·34	13·82	8
9	Sholápur	10	10	718	718	789	685	645	954	1,296	387	1,223	1,323	1,337	1,040	760	725	5,860	5,801	11,661	14·97	15·38	15·18	14·41	9
10	Sátára	19	19	1,346	1,237	970	787	796	1,050	1,330	1,114	1,142	1,197	1,255	1,174	951	939	6,637	6,168	12,705	12·18	11·37	11·76	10·68	10
11	Ratnágiri	15	15	1,311	1,199	1,490	1,205	1,003	1,011	893	760	903	1,042	992	963	990	1,145	6,839	6,566	12,405	10·55	10·09	10·31	12·73	11
	Southern Registration District.																								
12	Belgaum	15	15	1,070	933	497	442	521	525	593	467	429	462	470	470	449	462	3,024	2,763	5,787	6·32	5·96	6·14	5·06	12
13	Dhárwár	18	18	1,295	1,118	731	648	678	669	802	507	503	493	559	616	692	685	3,654	3,737	7,391	7·03	7·40	7·21	7·81	13
14	Bijápur	13	13	1,122	1,041	539	464	446	593	684	662	786	909	922	910	894	582	4,068	4,103	8,171	9·33	9·56	9·47	9·68	14
15	Kánara	16	16	1,265	1,009	656	489	503	402	342	385	409	449	417	460	437	413	2,655	2,707	5,362	12·06	12·57	12·46	13·34	15
	Gujarát Registration District.																								
16	Surat	12	12	760	720	1,108	899	938	822	903	650	676	928	1,075	979	986	1,192	5,532	5,514	11,046	16·93	16·72	16·89	15·25	16
17	Broach	9	9	409	394	721	497	496	445	460	339	367	606	780	834	645	754	3,411	3,533	6,944	21·56	23··0	22·64	22·38	17
18	Kaira	15	15	586	566	708	645	757	738	815	640	677	862	1,026	1,008	802	813	4,832	4,659	9,491	13·05	14·49	13·72	12·14	18
19	Panch Mahális ...	7	7	660	613	519	457	564	498	430	343	313	395	480	493	499	549	2,883	2,656	5,539	17·33	16·94	17·12	17·68	19
20	Ahmedabad ...	13	13	880	843	2,010	1,752	1,884	1,844	1,520	1,170	975	1,637	1,884	1,904	1,717	1,979	10,501	9,725	20,226	24·39	24·61	24·45	24·86	20
	Sind Registration District.																								
21	Karáchi	16	16	665	665	696	497	418	312	331	279	295	254	361	335	449	671	2,672	2,226	4,898	9·29	9·85	9·49	8·98	21
22	Hyderabad ...	11	11	864	864	791	615	616	529	433	375	342	392	398	606	739	961	3,850	2,972	6,822	11·41	10·86	11·16	12·28	22
23	Thar and Párkar...	13	13	901	901	935	839	827	610	533	406	383	251	320	291	382	524	3,456	2,825	6,281	14·32	14·76	14·49	16·56	23
24	Nawabshah ...	9	9	721	721	775	572	552	413	400	313	303	290	293	419	565	693	3,041	2,547	5,588	12·28	12·69	12·46	13·57	24
25	Lárkhána	15	15	737	737	1,835	1,243	1,193	951	641	745	643	670	798	1,059	1,544	1,508	6,729	6,101	12,830	18·73	20·23	19·42	19·46	25
26	Sukkur	12	12	684	684	946	628	604	581	598	621	583	538	734	967	1,469	1,426	5,032	4,613	9,695	16·25	17·09	16·90	17·14	26
27	Upper Sind Frontier	7	7	422	422	419	318	268	241	301	236	228	200	260	399	532	427	2,040	1,789	3,829	14·02	15·23	14·56	13·33	27
	Total for the Presidency ...	361	361	26,253	24,529	25,803	21,069	21,391	21,191	21,269	17,571	18,346	21,436	22,158	22,057	22,730	24,143	138,231	125,933	259,164	13·08	13·40	13·23	12·99	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1914.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	22	22	1,438	500	68	94	117	136	181	192	263	399	287	170	104	92	1,674	1,025	2,699	2·06	2·06	2·06	2·02	1
2	West Khándesh ...	10	10	1,096	166	32	22	24	20	30	33	63	94	59	22	24	17	241	207	448	·32	·72	·77	·78	2
3	Násik	19	19	1,649	464	38	62	58	84	111	150	188	257	225	131	81	96	768	763	1 471	1·69	1·56	1·64	1·60	3
4	Thána	17	17	1,643	231	59	44	50	41	69	69	110	98	55	62	61	44	430	332	762	·94	·78	·86	·92	4
5	Kolába... ...	14	14	1,461	370	101	50	48	58	49	45	90	109	87	47	34	57	420	354	774	1·42	1·18	1 30	1·49	5
6	City of Bombay ... — *Central Registration District.*	1	1	1	1	321	269	294	281	258	226	229	347	261	180	181	209	1,677	1,378	3,055	2·66	4·13	3·17	3·43	6
7	Ahmednagar	15	15	1,348	853	159	140	227	311	321	498	711	693	475	316	216	169	2,239	1,997	4,236	4·71	4·25	4·49	4·32	7
8	Poona	18	18	1,201	651	203	195	218	237	265	348	725	534	475	339	221	197	2,179	1,778	3,957	4·04	3·48	3·72	4·45	8
9	Sholápur	10	10	718	623	241	198	225	339	362	298	647	928	776	500	289	263	2,644	2,431	5,075	6 76	6 45	6·61	6·11	9
10	Sátára	19	19	1,346	815	198	755	185	303	518	437	557	792	770	574	344	255	2,619	2,469	5,088	4·88	4·55	4·71	4·00	10
11	Ratnágiri	15	15	1,311	957	303	305	247	274	249	261	353	445	265	235	333	366	1,952	1,739	3,691	3·53	2·67	3·07	2·57	11
	Southern Registration District.																								
12	Belgaum	15	15	1,070	688	159	121	178	232	402	436	514	548	566	538	334	240	2,120	2,198	4,318	4·43	4·70	4·56	4·42	12
13	Dhárwár	18	18	1,295	381	68	74	93	93	97	125	135	152	155	171	140	79	713	671	1,382	1·37	1·33	1·35	1·28	13
14	Bijápur	13	13	1,122	441	99	64	77	63	117	192	340	528	559	416	207	153	1,374	1,441	2,815	3·17	3·36	3·26	2·78	14
15	Kánara	16	16	1,235	309	78	64	63	50	51	45	73	142	147	135	137	102	585	503	1,087	2·65	2·39	2·53	2·41	15
	Gujarát Registration District.																								
16	Surat	12	12	760	136	44	29	39	28	31	28	40	56	57	23	32	74	245	236	481	·75	·72	·74	·60	16
17	Broach...	9	9	409	79	10	7	7	10	6	9	16	37	21	17	29	12	112	69	181	·71	·46	·59	·74	17
18	Kaira	15	15	586	248	30	31	52	66	105	99	131	154	153	159	82	50	646	466	1,112	1·75	1·45	1·61	1·61	18
19	Panch Mahális ...	7	5	660	11	3	2	1	...	2	2	2	6	1	4	2	...	14	11	25	·08	·07	·09	·25	19
20	Ahmedabad ...	13	12	880	73	34	30	30	17	39	30	52	64	31	9	13	10	195	164	359	·45	·41	·43	·78	20
	Sind Registration District.																								
21	Karáchi	16	11	665	11	22	15	12	15	14	6	20	23	20	10	17	14	121	72	193	·42	·32	·37	·38	21
22	Hyderabad	11	9	864	9	13	8	14	...	7	4	11	10	6	16	16	32	70	67	137	·21	·24	·22	·44	22
23	Thar and Párkar ...	13	11	901	21	1	2	4	1	1	...	1	...	1	2	6	10	19	10	29	·08	·05	·07	·03	23
24	Nawabshah	9	6	721	6	5	2	1	1	...	1	1	1	1	1	7	11	15	24	22	46	·10	·11	·10	24
25	Lárkhána	15	8	737	10	2	3	...	1	...	...	...	...	2	...	5	8	9	12	21	·03	·04	·03	·05	25
26	Sukkur...	12	11	634	21	15	6	7	3	3	5	3	11	3	9	18	19	68	40	108	·22	·15	·19	·13	26
27	Upper Sind Frontier	7	5	422	5	2	1	1	...	...	...	...	1	1	2	2	1	8	3	11	·05	·03	·04	·04	27
	Total for the Presidency ...	361	333	26,253	8,124	2,913	1,993	2,272	2,673	3,287	3,588	5,280	6,425	5,465	4,153	2,939	2,573	22,563	20,398	42,961	2·21	2·17	2·19	2 14	

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1914.*

1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh ...	22	22	1,438	964	442	344	340	349	274	283	253	393	391	396	386	425	2,269	1,966	4,235	4·35	3·83	4·09	3·94	1
2	West Khándesh...	10	10	1,096	514	193	183	152	147	83	67	96	91	105	110	133	193	831	722	1,553	2·83	2·51	2·67	2·16	2
3	Násik ...	19	19	1,649	956	360	285	338	324	267	254	287	359	320	344	336	358	1,869	1,963	3,832	4·11	4·38	4·24	3·78	3
4	Thána ...	17	17	1,643	297	60	69	70	59	43	57	39	49	68	69	75	103	438	323	761	·96	·76	·86	·95	4
5	Kolába ...	14	14	1,461	412	90	63	55	83	60	77	59	115	97	80	25	50	471	383	854	1·60	1·28	1·44	·77	5
6	City of Bombay...	1	1	1	1	1,032	1,019	1,153	1,038	960	814	827	846	656	623	582	587	5,605	4,532	10,137	8·90	13·59	10·52	11·02	6
	Central Registration District.																								
7	Ahmednagar ...	15	15	1,348	971	327	300	296	435	386	383	477	454	376	365	354	369	2,159	2,363	4,522	4·54	5·04	4·79	3·54	7
8	Poona ...	18	18	1,201	748	264	239	301	324	334	326	398	420	399	391	325	339	1,995	2,065	4,060	3·70	3·92	3·81	3·24	8
9	Sholápur ...	10	10	718	334	135	110	110	96	111	100	130	157	138	151	128	118	690	794	1,484	1·76	2·10	1·93	1·86	9
10	Sátára ...	19	18	1,346	497	104	98	111	143	150	132	127	170	165	149	146	155	787	863	1,650	1·46	1·59	1·53	1·60	10
11	Ratnágiri ...	15	15	1,311	784	289	206	343	337	271	285	304	395	354	330	354	373	2,048	1,743	3,791	3·69	2·68	3·15	1·85	11
	Southern Registration District.																								
12	Belgaum ...	15	15	1,070	696	243	248	279	279	270	231	238	320	335	364	349	299	1,766	1,689	3,455	3·69	3·64	3·67	2·61	12
13	Dhárwár ...	18	18	1,295	777	363	318	341	327	279	263	292	372	417	403	343	383	1,959	2,142	4,101	3·77	4·24	4·00	2·89	13
14	Bijápur ...	13	13	1,122	615	185	153	152	172	192	154	195	218	204	229	169	168	1,183	1,008	2,191	2·73	2·35	2·54	2·43	14
15	Kánara ...	16	16	1,265	218	35	20	52	38	29	31	28	39	38	21	49	49	256	173	429	1·98	·82	1·00	1·02	15
	Gujarát Registration District.																								
16	Surat ...	12	12	760	568	476	425	457	417	353	311	319	376	373	302	302	477	2,489	2,099	4,588	7·62	6·42	7·02	6 84	16
17	Broach ...	9	9	409	249	206	164	164	143	125	119	123	158	159	147	150	153	996	815	1,811	6·30	5·49	5·90	5·87	17
18	Kaira ...	15	15	586	547	568	534	626	574	554	466	471	601	608	638	443	494	3,638	2,939	6,577	9·83	9·14	9·51	9·53	18
19	Panch Mahals ...	7	7	660	105	38	42	42	22	18	9	10	20	16	13	17	25	194	78	272	1·17	·63	·84	·77	19
20	Ahmedabad ...	13	13	880	259	382	374	370	395	319	235	235	152	332	322	302	345	2,084	1,679	3,763	4·82	4·25	4·55	5·43	20
	Sind Registration District.																								
21	Karáchi ...	16	13	665	24	132	115	123	134	87	73	54	83	54	53	57	129	589	505	1,094	2·03	2·24	2·12	1·46	21
22	Hyderabad ...	11	9	864	9	48	42	63	17	1	...	1	34	36	35	46	69	219	173	392	·65	·63	·64	·88	22
23	Thar and Párkar.	13	12	901	23	22	47	14	6	2	2	2	4	3	2	7	18	96	33	129	·40	·13	·30	·12	23
24	Nawabshah ...	9	7	721	7	6	5	9	7	4	2	3	4	3	7	12	24	49	37	86	·20	·18	·19	·11	24
25	Lárkhána ...	15	9	737	10	...	...	...	6	..	...	1	1	1	...	8	12	18	11	29	·05	·04	·04	·03	25
26	Sukkur ...	12	11	684	28	15	11	10	4	15	10	3	15	18	8	16	19	96	48	144	·31	·18	·25	·16	26
27	Upper Sind Frontier ...	7	1	422	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	·01	·00	·01	27
	Total for the Presidency ...	361	338	26,253	10,644	5,965	5,414	5,960	5,876	5,187	4,634	4,972	5,846	5,667	5,552	5,114	5,784	34,794	31,147	65,941	3·42	3·31	3·37	3·08	

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1914.*

1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh...	22	7	1,438	22	216	152	107	19	2	...	...	...	31	12	5	21	279	286	565	·53	·56	·55	2·00	1
2	West Khándesh...	10	...	1,096	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·22	2
3	Násik ...	19	11	1,649	50	...	16	4	...	1	...	29	145	192	245	261	225	542	576	1,118	1·19	1·28	1·23	1·84	3
4	Thána ...	17	13	1,643	43	33	38	63	66	54	56	68	61	17	23	16	21	291	225	516	·63	·53	·59	·87	4
5	Kolába ...	14	10	1,461	56	73	108	227	200	41	6	12	21	5	...	2	1	412	284	696	1·39	·96	1·18	·92	5
6	City of Bombay...	1	1	1	1	59	119	463	1,133	820	146	83	55	35	10	7	5	2,043	892	2,935	3·24	2·67	3·05	3·57	6
	Central Registration District.																								
7	Ahmednagar ...	15	10	1,348	12	69	71	64	7	1	...	...	...	...	2	5	8	119	108	227	·25	·23	·24	·51	7
8	Poona ...	18	16	1,201	92	226	116	77	61	25	28	88	223	276	236	240	214	968	842	1,810	1·79	1·59	1·70	1·32	8
9	Sholápur ...	10	1	718	1	1	...	...	...	...	...	...	...	...	1	...	4	2	4	6	·01	·01	·01	2·10	9
10	Sátára ...	19	18	1,346	119	442	249	179	108	16	7	25	53	188	339	249	187	934	1,099	2,033	1·73	2·03	1·88	3·61	10
11	Ratnágiri ...	15	4	1,311	6	7	5	13	13	2	...	...	...	4	...	1	2	21	26	47	·03	·04	·04	·19	11
	Southern Registration District.																								
12	Belgaum ...	15	15	1,070	127	343	343	245	113	40	46	90	259	643	498	207	161	1,485	1,503	2,988	3·10	3·24	3·17	5·27	12
13	Dhárwár ...	18	18	1,295	187	941	507	288	92	7	14	65	133	256	334	250	203	1,466	1,624	3,090	2·80	3·21	3·01	10·03	13
14	Bijápur ...	13	10	1,122	104	528	387	188	44	4	2	4	2	49	73	45	56	633	743	1,376	1·46	1·73	1·59	6·52	14
15	Kánara ...	16	3	1,265	4	...	2	10	...	4	...	...	1	...	...	...	1	9	9	18	·04	·04	·04	·22	15
	Gujarát Registration District.																								
16	Surat ...	12	10	760	67	100	138	234	162	70	20	41	55	36	29	28	15	452	476	928	1·38	1·46	1·42	1·31	16
17	Broach ...	9	5	409	5	...	...	5	1	...	...	...	...	...	1	...	5	5	7	12	·03	·05	·04	·07	17
18	Kaira ...	15	5	586	6	...	2	6	11	7	...	...	...	1	7	16	1	22	28	50	·06	·09	·07	1·05	18
19	Panch Mahals ...	7	3	660	3	...	...	1	1	...	...	...	...	...	...	...	6	3	5	8	·02	·03	·02	·30	19
20	Ahmedabad ...	13	3	880	6	...	2	18	17	...	...	1	10	7	23	16	12	43	63	106	·10	·16	·13	·36	20
	Sind Registration District.																								
21	Karáchi ...	16	9	665	9	101	162	347	341	104	14	1	...	1	...	5	2	649	429	1,078	2·23	1·90	2·09	3·41	21
22	Hyderabad ...	11	5	864	8	...	11	13	39	5	...	...	...	10	21	57	146	200	102	302	·59	·37	·50	·01	22
23	Thar and Párkar.	13	5	901	6	...	5	82	38	4	...	...	...	...	...	...	...	97	32	129	·40	·17	·30	...	23
24	Nawabshah ...	9	3	721	3	...	3	4	5	1	...	...	...	...	...	...	3	15	1	16	·06	·00	·04	·03	24
25	Lárkhána ...	15	1	737	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	·00	·00	...	25
26	Sukkur ...	12	3	684	3	...	...	1	1	2	...	...	...	...	...	1	...	4	1	5	·01	·00	·01	·01	26
27	Upper Sind Frontier ...	7	...	422	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
	Total for the Presidency ...	361	189	26,253	941	3,139	2,430	2,629	2,472	1,210	339	507	1,018	1,751	1,854	1,411	1,300	10,694	9,366	20,060	1·05	1·00	1·02	2·11	

N. B.—These figures do not include deaths among Europeans, Eurasians and Fighting men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.

ANNUAL SANITARY REPORT, 1915.

(Maximum limit, 25 pages.)

CONTENTS.

SECTIONS I TO IV.—No remarks.

SECTION V.

	PAGE.
General population and vital statistics	1—6
European and Eurasian	1
Indian—	
Births	1
Deaths	3
Infant mortality	4
Deaths by causes	5
Cantonments in quasi-foreign territory	5
Rainfall	6

SECTION VI.

History of Chief Diseases	7—20
Cholera	7
Dysentery and diarrhœa	8
Fevers	9
Anti-malarial measures	11
Sand-fly fever	11
Plague	12
Plague preventive measures	15
Small-pox	16
Respiratory Diseases	17
Phthisis	17
Injuries	18
Snake-bite	19
Other causes	20

SECTIONS VII and VIII.—No remarks.

SECTION IX.

Sanitary Works—Civil	21—28
Municipal work	21
Grant from Government of India and Provincial Funds	22
Notified area	24
Sanitary Committees	25
Pilgrim centres	27

SECTION X.

Personal proceedings	28

APPENDICES.

	PAGE.
Annual Report of the Sanitary Board	1—4
" " Health Officer of the Port of Bombay	5—10
" " " " " Karáchi	11—13
" " " " " Aden	15—18
Death-rates before and after completion of drainage and water-supply projects ...	19
Annual Form No. I—Births	20
Do. II—Births and Deaths	21
Do. III—Deaths by Months	22
Do. IV—Deaths by Ages	24—25
Do. V—Deaths by Classes	26—27
Do. VI—Deaths by Districts and Towns classified by causes ...	28—37
Do. VII—Deaths from Cholera	38
Do. VIII—Deaths from Small-pox	38
Do. IX—Deaths from Fever	39
Do. X—Deaths from Dysentery and Diarrhœa	39
Do. XI—Deaths from Respiratory Diseases	40
Do. XII—Deaths from Plague	40

ANNUAL SANITARY REPORT FOR 1915.

SECTIONS I TO IV.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

In accordance with Government Notification in the General Department No. 2694, dated 29th March 1915, published at page 930 of Part I of the *Bombay Government Gazette*, dated 1st April 1915, the Cantonment of Jacobabad was closed from 1st April 1915.

2. Throughout this report figures for population are those at the time of the last census taken in March 1911.

3. During the year, among 30,192 Europeans 323 births and 200 deaths were recorded against 288 and 280 in 1914, the calculated birth rate was 10·63 per mille against 9·54 in 1914 and the death rate 6·62 against 9·27. One hundred and fifty-seven male and 166 female births were recorded against 137 and 151 in 1914, while 127 male and 73 female deaths were reported against 179 and 101 in 1914.

Europeans.

4. In a population of 8,902, 198 births were registered against 173 in 1914 and 138 deaths against 152; the birth rate was 22·24 per mille against 19·44 in 1914 and the death rate 15·50 against 17·08.

Anglo-Indians.

Of the births 107 were males and 91 females against 97 and 76 in 1914, whilst of the deaths 76 were males and 62 females against 74 and 78 in 1914.

5. The population including Sind is 19,587,383. There are now, including Bombay City, 27 Collectorates comprising 248 rural (Taluka or Mahal) Registration Circles, 104 towns and 8 Cantonments; in addition statistical returns are received from 7 Cantonments in quasi-~~foreign territory~~ native States.

Indian population.

The population of the rural circles is 16,407,762; of the town circles 3,106,656; of the Cantonments in British territory 72,965; and of the Cantonments in Native States 100,089 persons.

6. 726,780 births were registered showing a decrease of 6,296 from the figure for 1914 and increase of 66,812 over that for the decennial mean. The number of births recorded annually since 1905 is given below :—

1905	611,173	1911	705,090
1906	625,486	1912	684,890
1907	610,533	1913	684,803
1908	660,201	1914	733,076
1909	657,685	1915	726,780
1910	689,701		

7. The birth rate for the year was 37·10 and is compared below with the rates recorded in other parts of India—

Bengal	31·80	Bihar and Orissa	40·40
Madras	31·2	United Provinces	43·49
Assam	33·60	Punjab	43·60
Burma	35·13	Central Provinces	47·95

If Sind and Bombay City be excluded the birth rate for the Presidency was 41·37 against 42·1 in 1914. As usual a wide divergence between the birth rate for rural areas (42·67) and that for urban areas (31·73) has to be recorded.

Birth rate for rural areas in Presidency.

8. Over rural areas the variation in birth rate was from 57·16 for Man Taluka in Satara District to 26·48 for Yellapur Taluka in Kanara District. Of the 187 talukas, pethas and mahals 23 or 12·3 per cent. returned birth rates under 35 per 1,000. Of these, 10 (Malvan, Vengurla, Devgad, Rajapur, Ratnagiri, Chiplun, Guhagar, Khed, Dapoli, and Mandangad) were in Ratnagiri, 7 (Karwar, Kumta, Ankola, Sirsi, Haliyal, Yellapur and Supa) in Kanara, 2 (Walwa and Malcompeth) in Satara, 2 (Bassein and Salsette) in Thana, 1 (Mawal) in Poona and 1 (Hubli) in Dharwar.

Registration in rural areas shows signs during the past two years of great improvement which is probably an index of increased interest taken in the matter by District officers. This improvement should be maintained and further advance is possible: the attainment of accuracy in registration is so important for the future of the Presidency that District officers may rest assured that time spent by them in the examination of village registers is well spent.

Birth rate for urban areas in Presidency.

9. Out of 85 towns 22 returned birth rates of over 40, *viz.* Dohad (61·81), Borsad (51·94), Dholka (51·73), Umreth (51·72), Erandol (49·75), Jambusar (49·72), Dhanduka (49·01), Gokarn (48·27), Ranebennur (47·39), Sholapur (46·53), Kapadvanj (45·94), Kaira (45·91), Nadiad (45·78), Gadag-Bettegiri (44·23), Mehmadabad (42·97), Barsi (42·88), Nasirabad (42·81), Ahmedabad (42·31), Parola (41·96), Bagalkot (41·05), Dharwar (40·72), Gokak (40·68).

For 51 towns or 60 per cent. (against 12·3 per cent. for rural areas) the recorded birth rates were less than 35 per 1,000: for 7 towns—against 13 in 1914—the recorded birth rates were less than 20, *viz.* Lonavla (19·28), Islampur (19·01), Kalyan (18·88), Kurla (18·63), Uran (15·78), Junnar (14·17), and Poona (11·01).

The reason for disparity in birth rates for urban areas needs investigation for each area, but it may be said that generally the cause is inefficient registration. The effect of active interest is evidenced in the cases of Ahmedabad and Surat cities. In 1912 the recorded birth rate for Ahmedabad was 23·4: it rose in 1913 to 30·84; in 1914 to 34·56 and in 1915 to 42·31. In 1914 the birth rate for Surat was 11·44; in 1915 it was 24·61. These improvements are undoubtedly due to the supervision exercised by the Health Officers and the members of the staff working under them: it would be difficult to find more ample justification for the policy leading to the appointment of Health Officers. Unfortunately a similar result is not forthcoming for Poona City, which again returns the lowest birth rate recorded in the Presidency. The matter is engaging the attention of the Health Officer.

Birth-rate—Bombay City.

10. In Bombay City 19,732 births were registered against 19,360 in the previous year, the birth rate being 20·48.

Birth-rate—Sind.

11. In Sind the birth rate was 23·29 against 21·95 in 1914. It is again noted that the birth rate for urban areas (32·17) is much in excess of that for rural areas (22·07), a reversal of the condition existing in the Presidency.

The registration of births is still very defective in Sind. Of 19 urban circles two—Karachi (41·60) and Rohri (41·13)—returned birth rates of over 40; four—Ratodero (37·33), Kambar (36·43), Larkana (35·90), Tatta (35·39)—between 35 and 40; and four—Sukkur (33·54), Jacobabad (32·22), Shikarpur (32·03) and Umarkot (31·68)—between 30 and 35.

Registration in rural areas in Sind presents many difficulties and for this reason deserves progressive attention.

Birth-rate—Cantonments.

12. The birth rate in Karachi Cantonment was 20·49 while for remaining cantonments it was below 20, varying between 17·96 for Kirkee Cantonment and 5·94 for Ahmednagar.

Births by sexes.

13. Out of 726,780 births 376,930 were males and 349,850 were females. The ratio of male to female births was as 107·74 to 100. The corresponding figure for males last year was 107·29. The proportion of male to female births varied from 102·32 in Dharwar to 136·35 in Nawabshah Collectorate.

Still births.

14. 10,764 still births, or 1·48 per cent. of the total live births, were registered. The corresponding figures for 1914 were 10,034 and 1·37 per cent.

It is impossible to estimate the percentage of still births which remain unrecorded: an indication is given by taking extreme instances thus: the percentage of still to live births varied from 0·13 for Ahmednagar to 7·72 for the City of Bombay. In Belgaum (2·62), Dharwar (3·91), Bijapur (2·89) and Kanara (5·90) districts the percentages of still to live births are high as compared with Ratnagiri (·29), Satara (·35), West Khandesh (·46), Nawabshah (·47) and Sholapur (·55). These variations are not entirely caused by differences in conditions affecting viability.

Deaths.

15. 511,613 deaths were registered against 577,504 in 1914. Of the total deaths registered 263,672 occurred among males and 247,941 among females against 298,988 and 278,516 in 1914.

The number of deaths recorded in each year since 1905 is given :—

1905	...	588,394	1909	...	505,936	1913	...	521,539
1906	...	648,019	1910	...	560,003	1914	...	577,504
1907	...	603,606	1911	...	555,312	1915	...	511,613
1908	...	501,838	1912	...	683,210			

1915 must be considered, therefore, in spite of the high incidence of plague, as a comparatively healthy year.

16. The recorded death rate was 26·12 against 29·48 in 1914 and a decennial mean of 30·39.

The death rates recorded in other parts of India are given :—

Madras	...	22·0	Bihar and Orissa	...	32·2
Bengal	...	32·83	Punjab	...	36·33
Assam	...	30·86	United Provinces	...	30·05
Burma	...	27·99	Central Provinces	...	35·91

Death rate for Presidency.

17. Excluding Bombay City and Sind the death rate for the Presidency was 28·13 against 32·12 in 1914. The death rates for rural and urban areas were 27·56 and 32·36 against 31·82 and 33·76 in 1914 respectively.

For Collectorates the highest death rate (38·02) was recorded in Nasik District and the lowest (17·07) in Panch Mahals.

Of the 187 talukas, pethas and mahals two returned death rates above 50; *viz.* Niphad (59·94) and Athani (51·22); 9 returned rates above 40, *viz.* Sinnar, Chandor, Baglan in Nasik, Sholapur and Barsi in Sholapur, Ranebennur and Kod in Dharwar, Mundgod and Supa in Kanara.

For urban areas there was a very wide variation in the death rates between 85·27 for Sholapur and 13·78 for Dhulia. Out of 85 towns 10 against 16 in 1914 returned death rates over 40, *viz.* Sholapur (85·27), Ranebennur (75·93), Barsi (71·45), Islampur (57·61), Gokak (49·96), Athani (47·30), Nasik (47·13), Dohad (44·18), Malegaon (41·55) and Ahmedabad (40·67).

Death rate for Bombay City.

18. The death rate for Bombay City was 24·17, the registered number of deaths being 23,287 against 31,500 in 1914. The mean death rate for the previous 10 years was 42·39.

Corrected death rates.

19. The following table gives death rates corrected in accordance with age and sex distribution for the few towns for which such correction is possible :—

	Standard death rate.	Factor for correction.	Recorded death rate, 1915.	Corrected death rate.
Presidency	37·7	1·	28·13	28·13
Bombay City	31·2	1·21	24·17	29·24
Ahmedabad	36·3	1·03	40·67	41·89
Karachi	35·6	1·06	37·03	39·23
Surat	36·6	1·03	33·09	34·08
Poona	36·5	1·03	32·31	33·27
Sholapur	36·3	1·03	85·27	87·82

Comparison between different towns is only possible by the use of corrected death rates: the variations in the death rates for the towns mentioned in the table is very largely governed by the incidence of plague, but there is one other point which requires emphasis. The high death rate for Ahmedabad is not caused by plague; some of it is caused by intestinal diseases which have in Ahmedabad a tendency to seasonal prevalence during the monsoon. The comparatively low death rate in spite of plague in Poona City is due to a saving of child life by sterilisation of the water-supply: similar attention to the water-supply of Ahmedabad may be followed by like results.

Death rate in Sind.

20. The death rate for Sind was 18·00. The variation between the rate for urban areas (35·32) and that for rural areas (15·63) is very marked. The urban death rates range between 17·08 for Hala and 60·13 for Mirpurkhas.

Death rate in Cantonment.

21. The lowest death rate 5·56 was recorded in Ahmednagar and the highest 30·89 in Deolali.

Natural increase or decrease in population.

22. Over the Presidency as a whole the births exceeded the deaths 215,167. Figures for collectorates are given in columns 6 and 9, Annual Form II, and the following table gives the natural increase or decrease in population for the principal registration areas :—

	Excess of births over deaths.	Percentage increase on population of 1911.	Excess of deaths over births.	Percentage decrease.
Presidency excluding Sind and Bombay City ...	200,180	1·3	.....	.....
Sind ...	18,542	·53	.....	·37
Bombay City ...	.....	.....	3,555	

Deaths by sexes and ages.

23. 263,672 male and 247,941 female deaths were recorded giving death rates of 25·88 and 26·38 respectively against 29·34 and 29·63 for 1914. For every 100 females 106·34 males died. The corresponding figure for 1914 was 107·35. In Sind the ratio of male to female deaths was as 122·30 to 100.

Infant mortality.

24. The following is a short extract from the report of the Executive Health Officer of Bombay City :—

* * * * * * *

For the Presidency the infant death rate per 1,000 registered births was 172 against 193·81 in 1914. The male and female rates were 178·92 and 164·55 as compared with 201·86 and 185·15 in the previous year.

Further observations on the percentages of deaths occurring at different periods during the first year of life were made in the Belgaum, Dharwar,

Bijápur and Kánara Districts: the results are incorporated in the following table and compared with figures for Bombay City:—

District.	Under 1 month.	Between 1 and 6 months.	Between 6 and 12 months.
Belgaum	48·49	26·99	24·52
Dhárwár	42·36	31·97	25·67
Bijápur	42·82	33·21	23·97
Kánara	56·78	24·32	18·90
Bombay City	36·61	30·34	33·24

The fact that over 62 per cent. of all child births in Bombay are attended by municipal nurses and midwives may well account for the comparatively low percentage of deaths during the first month of life. The circumstances attending child birth in the mofussil are often dangerous to the life of the infant and of the mother, and schemes for their amelioration must exercise the attention of social reformers of the present day. Apart from these unfavourable circumstances there are other factors which influence largely the viability of the infant; the more important are diseases which sap the vitality of the mothers. Malaria and the evil results of prostitution are potent causes of the early death of the infant.

Deaths by castes or classes.

25. The deaths by classes in each Collectorate are recorded in Annual Form V, Appendix IV.

Ahmedabad City.

26. The general death-rate in Ahmedabad City fell from 41·66 to 40·67. The mean death-rate for the past 5 years being 47·23. Plague caused 1, fever 4,152, dysentery 240 and respiratory diseases 2,530 as against 4, 4,487, 168 and 2,279, respectively, in 1914. There were 9,054 births recorded or 42·31 per mille of population. The deaths registered under 1 year were 2,559 corresponding to a ratio of 282·64 per 1,000 of registered births.

27. The subjoined table shows the number of deaths in 1915 arranged according to causes and contrasted with the results for 1914, and with the mean of preceding five years:—

	Mean for 5 years 1910—1914.		1915.		1914.	
	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.
Cholera	19,386	·99	377	·02	17,779	·91
Small-pox	5,940	·30	1,425	·07	4,209	·21
Plague	39,955	2·05	43,824	2·24	20,060	1·02
Fever	255,671	13·21	224,797	11·48	259,164	13·23
Dysentery and Diarrhœa ...	42,442	2·19	31,707	1·62	42,961	2·19
Respiratory diseases... ...	61,484	3·18	63,364	3·23	65,941	3·37
Injuries	7,378	·38	8,113	·41	7,670	·39
Other causes	147,257	7·61	138,006	7·05	159,720	8·15
All causes	579,513	29·91	511,613	26·12	577,504	29·48

For comments on the causes of deaths, *vide* Section VI.

Cantonments in *quási*-foreign territory.

28. The total number of births registered in those Cantonments which are situated in *quási*-foreign territory during the year 1915 was 2,117 against 2,513 in 1914; the birth-rate being 21·15 per mille as against 25·77 in 1914. There were 3,690 deaths giving a ratio of 36·86 per mille against 3,880 and a ratio of 38·76 in 1914.

The high death-rate for Aden is noteworthy, caused as it is very largely by deaths from dysentery and diarrhœa. The contrast in this respect between

the civil population of Cantonment and those living within municipal limits is very marked.

The statistics are tabulated below :—

Statement showing the names of Cantonments with Population, Births and Deaths from diseases for the year 1915.

Cantonments.	Population according to census of 1911.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from									Ratio of deaths per 1,000 of population.								
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory diseases.	Injuries.	Other causes.	All causes.
Aden. Municipal limits.	40,684	6⅞	602	713	17·53	...	36	...	323	998	...	19	976	2,347	...	·88	...	7·94	24·41	...	·47	23·99	57·69
Aden. Purely civil population of Cantonment.	307	7⅜	42	1	3·26	...	...	...	...	1	...	...	6	7	...	...	...	...	3·26	...	...	19·54	22·80
Baroda ...	3,478	1	3,478	73	20·99	...	...	1	26	4	...	1	29	61	...	...	·29	7·47	1·15	...	·29	8·34	17·54
Deesa ...	7,129	5	171,320	115	16·13	...	...	...	21	11	12	1	46	91	...	...	...	2·95	1·54	1·68	·14	6·45	12·76
Mhow ...	22,360	6·5	3,440	247	11·05	...	1	60	234	...	...	...	300	595	...	·04	2·68	10·46	...	...	...	13·42	26·61
Nasirabad ...	16,144	8·58	1,881	668	41·38	...	...	...	186	...	...	...	210	396	...	...	...	11·52	...	...	...	13·01	24·53
Neemuch ...	9,786	4·52	2,165	299	30·55	...	...	...	73	8	22	1	87	191	...	...	...	7·46	·82	2·25	·10	8·89	19·52
Rájkot ...	201	·56	359	1	4·97	...	...	...	1	...	...	...	1	2	...	...	...	4·97	...	...	...	4·97	9·95
Total ...	100,089	100·87	992	2,117	21·15	...	37	61	864	1,017	34	22	1,655	3,690	...	·37	·61	8·63	10·16	·34	·22	16·53	36·86

Rainfall.

29. The rainfall during April and May over the Deccan was well distributed with the exception of Khándesh, the Karnátak and the Konkan. Practically no rain fell in Gujarát during these months.

The south-west monsoon burst after the middle of June, and at first caused rainfall much above the average except in parts of Bijápur and on the coast of Kánara and north Gujarát. The excess was particularly noticeable in Kolába, Thána, East Khándesh, Ahmednagar and Poona Districts.

In July the rainfall was in excess generally over the Deccan and eastern portion of the Karnátak: it was in great defect in the Konkan and Gujarát.

In August the rainfall was markedly in defect over the whole reporting area, to be remedied except in Gujarát by a considerable excess in September. The condition in Gujarát by the end of September caused considerable anxiety, but timely rain fell in October.

The total rainfall in Broach, Kaira and Ahmedabad Districts was much below the average, and it was anticipated that in certain areas the supply of water might be scanty in the following dry seasons: such scantiness is often associated with epidemic cholera. Precautionary measures were suggested.

The prices of food-grains in the Presidency were normal: in Sind low-paid servants of Government were granted grain compensation between the 1st June and end of October.

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

30. Three hundred and seventy-seven deaths were recorded compared with 17,779 in 1914. The mortality for each year since 1896 is given in the following table :—

Year.	Number of deaths.	Year.	Number of deaths.	Year.	Number of deaths.	Year.	Number of deaths.
1896	35,404	1901	13,600	1906	46,119	1911	5,817
1897	57,109	1902	3,229	1907	7,656	1912	64,505
1898	4,368	1903	1,825	1908	1,759	1913	5,134
1899	8,579	1904	13,156	1909	28,714	1914	17,779
1900	163,889	1905	5,396	1910	3,694	1915	377

Only once in the past 50 years have the inhabitants of the Presidency been so fortunate in the incidence of this disease : the comparative freedom in 1915 cannot, however, be taken as an index of sanitary progress, for, in the main cause of cholera—the indiscriminate fouling of the soil—there is little sign of improvement. So long as this can be said repetition of the experience of 1906, 1909, 1912 and 1914 may be expected. The elimination of cholera is in itself worthy of great effort, but when it is remembered that cholera is associated with excessive incidence of diarrhœa and dysentery and even of "fevers" the matter becomes of supreme importance. The future is not altogether without hope, for the past few years have seen the inauguration of several District Sanitary Associations: if the officials and members of these Associations keep in front of them the primary object of sanitary reform—the prevention of the contamination of water and food—the outlook for coming generations is bright.

31. *Distribution* :—Deaths were reported from 17 Collectorates in the Presidency and from 2 in Sind.

Thirteen towns and 61 villages reported deaths.

32. The only serious urban epidemics were in Godhra and Dohad Towns resulting in 55 and 45 deaths, respectively. Dr. Munsiff, the Deputy Sanitary Commissioner, visited Godhra and with the Civil Surgeon took steps to quash the disease. The origin of the disease was not ascertained, although in the case of Godhra suspicion rested on the river water. From these two towns the infection was carried to 12 villages, and gave rise to 36 deaths.

In the last quarter of the year 56 deaths were recorded from East and West Khándesh. Colonel Anderson, I. M. S., considers that the epidemic started in Bhusáwal Town with the introduction of infection on the 15th October from Khándva in the Central Provinces by a guard on the railway. Ten deaths in Bhusával resulted, the last case being reported on 30th October. No further deaths were registered till early in December, when two neighbouring villages on the banks of the Tápti river—Vitner and Anwarde Khurd were infected. The connecting link was probably the unrecognised infection of certain villages on the Tápti river. Colonel Anderson found that in Nánded Town in the Erandol Táluka 10 deaths in November really due to choleraic diarrhœa were registered as caused by fever. From Vitner and Anwarde Khurd the disease spread to other villages on the banks of the Tápti and Aner rivers. The disease was of a mild type and many recoveries were reported.

33. A very marked advance in the method of saving the lives of sufferers from the disease was made during the year by the issue of cholera "treatments". Each "treatment" consists of 24 pills made to Sir L. Roger's formula. This measure must result in good : the extent of benefit will depend on the rapidity with which treatments can be placed in the hands of village officers. To facilitate the early adoption of preventive and curative measures a post-card system of notification is being introduced.

Dysentery and Diarrhœa.

34. 31,707 deaths, of which 16,614 were males, and 15,093 females, were recorded against 42,961 in 1914, and 45,696 the mean of the previous 10 years.

The annual number of deaths registered under this head since 1904 is tabulated below:—

Year.	Number of deaths from dysentery and diarrhœa.	Year.	Number of deaths from dysentery and diarrhœa.
1904	61,470	1910	46,643
1905	55,488	1911	31,549
1906	61,736	1912	57,039
1907	53,708	1913	34,021
1908	40,781	1914	42,961
1909	35,039	1915	31,707
Total ...	308,222	Total ...	243,920
Mean ...	51,370	Mean ...	40,653

35. The urban death-rate was 2·23 and the rural 1·50.

The following table gives the towns in which the death-rate was over 2 per 1,000, and compares the death-rate for the year with the quinquennial mean:—

Town.	Death-rate.	Mean.	Town.	Death-rate.	Mean.
Erandol	2·36	0·95	Karád	2·76	4·19
Nasirabad	3·61	3·50	Ashta	2·24	1·86
Trimbak	2·94	1·96	Ratnágiri	7·58	2·43
Deoláli	3·43	2·88	Vengurla	4·86	2·24
Thána	2·24	2·55	Gokák	2·73	5·37
Kurla	2·45	2·65	Athni	2·24	6·60
Bhiwndi	2·56	1·39	Dhárwár	2·62	1·82
Bombay	2·20	3·53	Nipáni	2·50	2·55
Ahmednagar	2·77	2·07	Gadag	4·53	2·12
Poona	5·38	9·49	Bijápur	2·14	1·32
Bárámati	2·76	1·56	Bágalkot	3·41	3·02
Khed	3·10	1·61	Kárwár	3·16	2·71
Kirkee	4·43	5·64	Gokarn	3·77	4·08
Sholápur	14·06	11·25	Honáwar	2·59	2·93
Bársi	3·20	5·01	Bhátkal	2·80	2·45
Pandharpur	7·39	9·06	Surat	2·35	1·12
Sátára	4·23	7·18	Borsad	2·36	3·92
Wái	3·16	3·15	Dákor	2·31	2·07

36. The dysentery death-rate in all these towns represents a very serious loss to the community and deserves attention. The disease, though rife during the hot weather in many places, is mainly a monsoon epidemic: that is from 60 to 80 per cent. of the deaths are reported during the last half of the year. The line of action from which benefit is most likely to result is sterilization of the drinking water-supply. This was tried after the beginning of July in the case of Poona City and the death-rate in the year fell from 9·49 to 5·38. The important point is that only 40 per cent. of the deaths were registered in the last half of the year instead of the usual 70 or 80 per cent.: again the reduction in the death-rate between the ages of 1 and 5 was very marked during the same period: this brings forward another fact that the chief cause of death at this age period are diseases of which diarrhœa is a prominent symptom. A study of the dysentery death-rates by age periods for the districts of Poona, Sholápur, Ahmednagar, Sátára and Ratnágiri emphasises the two facts that dysentery and diarrhœa are diseases especially fatal to children under the age of 5 during the monsoon months.

Age period.	Ahmednagar death-rates.		Poona death-rates.		Sholápur death-rates.		Sátára death-rates.		Ratnágiri death-rates.	
	Aug.	Dec.	Aug.	Dec.	Aug.	Dec.	Aug.	Dec.	Aug.	Dec.
0—5 ...	2·09	0·76	1·48	0·45	2·59	0·95	2·17	0·67	1·13	0·82
5—10 ...	0·08	0·05	0·15	0·06	0·15	0·05	0·25	0·09	0·24	0·23
10—60 ...	0·05	0·07	0·07	0·05	0·05	0·09	0·10	0·05	0·12	0·
Over 60 ...	0·72	0·44	0·79	0·45	1·02	0·72	0·95	0·48	0·45	0·61

These figures would be still more striking if the population figures given in the census report permitted the calculation of death-rates for the 1—5 age period, for the majority of deaths occur between these ages. If the number of deaths from these diseases registered during August among children under 5 in Sholápur District had been maintained throughout the year a death-rate of 31 per 1,000 children would have been returned. The deaths during December were also of serious proportions, but represented, in comparison, a death-rate of 8 per 1,000. The liability to death falls rapidly in all 5 Districts with advancing years until old age is reached. The figures for Ratnágiri District are interesting in that rise in the death-rate among adults occurred in December as compared with August. It is possible that this rise is due to deaths of adults from diseases of which diarrhœa is often a terminal symptom, for instance malaria and tuberculosis.

37. The monsoon epidemic is undoubtedly largely due to the washing of surface impurities into the water supplies, and a great reduction in the sickness and mortality in Poona City was obtained by sterilization of the water with chlorine. In time this benefit can be extended to other towns provided with a general water-supply. Smaller towns especially those to which pilgrims are attracted need not be neglected, for Professor Cree Brown of the Engineering College has invented an apparatus for adding chemicals in correct proportion to small quantities of water: this apparatus can be worked wherever a reliable pump can be installed.

Fevers.

38. During 1915, 224,797 deaths were recorded from fevers, against 259,164 in 1914 and a decennial mean of 252,597. The death-rate was 11·49 against 13·23 in 1914 and a quinquennial mean of 13·21.

The annual mortality attributed to fevers since 1904 is given below:—

Year.	Number of deaths from fever.	Year.	Number of deaths from fever.
1904	251,330	1910	263,528
1905	245,373	1911	223,027
1906	274,653	1912	286,321
1907	260,329	1913	246,319
1908	243,372	1914	259,164
1909	223,888	1915	224,797
Total	1,398,945	Total	1,503,156
Mean	233,158	Mean	250,526

39. It is obviously important to investigate as far as possible the conditions underlying a death-rate which amounts to rather over $\frac{1}{3}$rd of the total death-rate. The most elementary part of such investigation consists in classifying the deaths according to age periods and seasons. This has been done for the past 8 years in the Southern Registration District, and the death-rates per age period for the 4 Collectorates are given below:—

	0—5.	5—20.	20—40.	40—60.	Over 60.
Belgaum	13·2	4·49	3·68	5·77	13·08
Dhárwár	16·02	4·49	4·99	8·24	22·46
Bijápur	21·53	4·07	3·97	8·08	34·94
Kánara	19·48	3·73	7·99	18·79	60·74

The high death-rates for all Districts at the age period 0—5, and the comparatively high death-rate for Kánara between the ages of 20 and 60 at once arrest attention. During the last 6 months of the year a similar analysis has been made of the figures for the Collectorates in the Central Registration District, and the result is tabulated:—

	0—5.	5—20.	20—40.	40—60.	Over 60.
Ahmednagar	15·73	1·65	1·96	3·84	9·59
Poona	18·91	2·02	1·93	3·95	22·07
Sholápur	18·25	1·83	1·75	2·77	14·09
Sátára	17·42	1·81	2·07	3·98	26·51
Ratnágiri	7·45	1·72	2·62	5·22	25·02

As the figures are for 6 months only each death-rate requires multiplication by some factor between 1 and 2 to bring it to an annual rate. In these Districts again the high incidence of fatal fevers during the first five years of life is very marked. In all the districts with the exception of Kánara and Ratnágiri from 40 to 60 per cent. of the deaths registered from fever between June and October are among children under 5. It is well known that intestinal disorders during early years of life commonly cause fever, and are very fatal. It has been pointed out in the section on cholera that in one village 10 deaths from choleraic diarrhœa were included under the heading fever, and this is no isolated instance. It is also certain that in infective intestinal affections of children death may occur before diarrhœa has had time to set in and when fever is probably the only symptom. The experience of past years has proved that the fever death-rate is exceptionally high in those years in which cholera is epidemic. All these facts point to intestinal disorders causing some portion of the fever mortality. The causes of intestinal disorders in children are the drinking of contaminated water and the eating of impure and unsuitable food, and there can be no reasonable doubt but that measures designed with the object of eliminating impure water and food will result in a lowering of the fever death-rate in addition to improvement in the mortality from cholera and diarrhœal diseases. Impure water and food are at the bottom of the high mortality in this Presidency, and must receive attention before any material and continued improvement in morbidity and mortality can be expected.

40. The adult fever death-rate presents a more difficult problem so far as suggesting a remedy. In Kánara and probably in Ratnágiri the high death-rates between the ages of 40 and 60 are mainly due to malaria: a similar tendency to high mortality at this age period is observed in all Districts, and the season is the same for all—the last quarter of the year. In some Districts plague is a contributing factor, but probably not to a very large extent, for in severe plague years the fever mortality is usually lower than the average. It is impossible to give a definite reason for the high adult death-rate for each District without an investigation over a certain area of each District. The carrying out of such investigation can only be done as opportunities arise and must naturally be slow.

41. The investigation into malaria in Kánara concluded in August last, and a report by Dr. Mhaskar has been submitted. The medical practitioners of Hubli Town complained of the prevalence of malaria within the municipal limits and a special investigation was carried out by Mr. deMello, the acting Deputy Sanitary Commissioner of the District.

42. The preventive measures against malaria in the Presidency and Sind were limited practically to the treatment of sufferers with quinine. In Sind 8 Sub-Assistant Surgeons were appointed to travel in the Districts of Hyderabad (3), Nawábshah (2), Sukkur (2), and Thar and Parkar (1). They treated 7,174 cases of malaria.

In addition 2,987 lbs. of quinine were sold and distributed free in the Presidency and Sind. The agencies for sale and distribution were (*a*) District Local Boards, (*b*) Municipalities, (*c*) Post Offices.

The Municipalities and District Local Boards issued quinine mainly in the form of treatments, but some in powder and pill; while at the Post Offices it was sold in pice packets.

In Sind the District Local Boards sold in the form of treatments 107 lbs. and in powder 14·5 lbs.; and distributed free 380 lbs. as treatments, 48 lbs. in powder and 54·5 lbs. in pill. The Post Offices of the Karáchi, Hyderabad, Sukkur and Indus Right Bank Division sold 221 lbs. of quinine powders.

In the Lárkána District 244·5 lbs. of quinine treatments were distributed free and 10 lbs. sold. The prophylactic administration of quinine to school children was carried out in Lárkána and Hyderabad Districts. The reports from Bádin Táluka of Hyderabad District indicate that only 15 per cent. of treated children were attacked by fever against 95 per cent. of untreated children.

There was a general complaint of the inability to obtain sufficient quinine especially in treatment form. The rise in the price of the drug will have serious results on the future health.

In the Presidency the District Local Boards and Municipalities sold in the form of treatments 222 lbs. and 5·5 lbs. in powder: they distributed free 206 lbs. as treatments, 60 lbs. in powder and 12·5 lbs. in pills. The sales were largest in East Khándesh (93 lbs.), Belgaum (30 lbs.), Dhárwár (18 lbs.), Ahmedabad (18 lbs.), and Thána (15 lbs.), while free distribution was greatest in Dhárwár (86 lbs.), Kaira (69 lbs.), and Broach (51 lbs.). In the Post Offices 1,654 lbs. of powders were sold, and represented a fairly even distribution except that sales were low in the Konkan and Belgaum Divisions.

43. In compliance with orders in Government Order, General Department, No. 6007 of 2nd August 1915, attention was drawn by the Deputy Sanitary Commissioner, Sind Registration District, to the existence of borrow pits near 6 villages in Lárkána District and 2 in Karáchi District and to the part they played in causing malaria in those villages. The borrow pits near the villages in Karáchi District have been filled up by the District Local Board.

The Deputy Sanitary Commissioner, Gujarát Registration District, reported that the tank on the Salál-Sonásan-Nánápur Road is a permanent breeding place for mosquitos and a feeder to numerous temporary breeding places: he also advised the prohibition of "Shingodi" cultivation in the tank between Prántij and Kamalpur owing to the provision thereby of innumerable breeding grounds for anopheline mosquitos. Both these tanks are in Prántij Táluka of Ahmedabad District. The Irrigation Department are taking steps to carry out the Deputy Sanitary Commissioner's recommendations.

44. The Deputy Sanitary Commissioners continued the taking of a spleen census, and a map for the Presidency showing the distribution of malaria is a possibility of the near future.

45. In the last annual report mention was made of an outbreak of sand-fly fever, which was investigated by the Acting Deputy Sanitary Commissioner of the Southern Registration District. The disease first appeared in the Navalgund Táluka in Dhárwár District in September 1914, and spread to 36 out of 58 villages in the táluka and attacked about 6,000 persons. Between September 1914 and June 1915 the adjacent tálukas of Dhárwár, Belgaum and Bijápur Districts were infected and over 14,000 attacks were reported. In no case was the result fatal. The breeding places of the sand-fly were found to be

the stone-built pit privies and the drains in connection with bath-rooms. The disease is often attended by severe pains and lassitude, and though not fatal is of importance in its possible effect on labour: the line of prevention is obvious.

PLAGUE.

46. Forty-three thousand eight hundred twenty-four deaths (21,943 males and 21,881 females) were recorded against 20,060 in 1914 and a decennial mean of 46,793.

The annual number of deaths recorded since 1904 is given below :—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1904 ...	123,957	1907 ...	93,609	1910 ...	25,043	1913 ...	25,288
1905 ...	71,363	1908 ...	27,345	1911 ...	100,399	1914 ...	20,060
1906 ...	51,525	1909 ...	24,319	1912 ...	28,984	1915 ...	43,824

Taking the figures from 1907 onwards there is a suggestion of a 4 years cycle; should subsequent experience bear this out there is some comfort in the fact that the epidemic of 1915 was much less severe than in either 1907 or 1911. This possibility must be borne in mind in estimating the value of such preventive measures as were taken.

47. The death-rate was 2·24 against 1·02 in 1914 and a quinquennial mean of 2·05. The disease was widespread in that all collectorates and 209 out of 360 registration circles reported deaths. In 1914 two collectorates escaped and only 189 registration circles were infected. In 1915 the disease was confined to 1,536 towns and villages against 941 in 1914. In a few collectorates only was a really severe epidemic experienced, for instance, in Belgaum, Dhárwár, Sholápur, Sátára and Násik Districts in the Presidency, and in Karáchi and Hyderábad in Sind.

48. In Belgaum District 9,526 deaths were recorded: the death-rate was 10·11 against a quinquennial mean of 5·19. The urban death-rate was 13·59 and the rural 9·82. In ordinary years the death-rate from plague falls steadily in the first half of the year, but in 1915 the fall did not commence till April. The reason for this rise in mortality in the beginning of 1915 has not been ascertained; whatever the cause, this unusual seasonal rise had a marked effect on the subsequent plague history of the year, for it resulted in the late infection of several important villages in Athni and Chikodi Tálukas, and added to the number of villages in which the infection was carried over during the hot months. In May the following towns and villages reported cases:—Athni Town and Jugal in Athni Táluka; Sadalgi, Ankli, Borgaon and Mankápur in Chikodi Táluka; Sankeshvar and Solápur in Hukeri Táluka; Belgaum in Belgaum Táluka; Mouze Nandgad in Khánápur Táluka. Thus, in the northern part of the district the infection during the hot weather was firmly implanted in 3 tálukas (Athni, Chikodi and Hukeri) and in 2 tálukas (Belgaum and Khánápur) in the south. From these centres the infection rapidly spread with the onset of favourable climatic conditions and Gokák Táluka was infected by road from Athni, its neighbour. In the 3 northern tálukas 7,137 deaths were reported out of 9,526 for the whole district and 48 per cent. of villages situated therein were infected. Gokák Táluka, infected directly from Athni, was responsible for 860 deaths, and the tálukas of Khánápur and Belgaum returned 565 and 710 deaths respectively. In the 4 tálukas, in which no carrying over centres existed, there were only 284 deaths.

It is impossible to avoid the conclusion that, if it had been possible completely to stamp out infection during April and May in the towns mentioned above, the plague history of the district would have been altered materially. A temporary Assistant Surgeon was appointed with a staff to carry out rat destruction. Between July and September 648,520 baits were laid in Athni Town, Sankeshvar in Hukeri, Kagwad in Athni, Sadalgi in Chikodi and Belgaum, Gari Gunji and Santibastwad in Belgaum, and 25,027 rats were

destroyed. Four hundred and forty-three thousand five hundred and eighty-nine baits or 68 per cent. of the total were laid in Belgaum Town. The cost of the operations which were not efficiently carried out, excluding the pay of the temporary Assistant Surgeon, came to Rs. 1,203.

The disease was reported from 228 towns and villages, of which 171 were in the 4 northern tálukas. Inoculation was carried out in 35 towns and villages. At the height of the epidemic, 2 Assistant Surgeons were appointed, who between them inoculated 5,323. The Medical Officers in charge of dispensaries inoculated 1,072, and 1,557 were inoculated by private medical practitioners and others. Out of 7,952 inoculations, 4,050 were performed in Belgaum and Athni Towns.

49. In Dhárwár District 5,976 deaths were registered: the death-rate being 5·83 against a quinquennial mean of 10·36. The urban death-rate was 4·92 and the rural 5·97. In May the infection was firmly established in 10 villages of 5 tálukas—Ránebennur, Kádarmandalgi and Kuppelur of Ránebennur Táluka; Herur and Alur in Hángal Táluka; Chikkabur, Kervádi and Kadur in Kod Táluka; Mallur in Karajgi Táluka; and Tadas in Bankápur Táluka. These tálukas returned 5,271 deaths out of the total number registered.

Rat destruction work was carried out by temporary Assistant Surgeon Gokhale at two places only for a limited period. Dhárwár Town was baited for about a month and Hángal for a week in July and August. In Dhárwár 21,844 baits were distributed and 1,666 rats were destroyed. In Hángal 10,870 baits were laid for the destruction of 1,132 rats.

Three hundred and sixteen towns and villages were infected, and in 156 of them inoculation was carried out. Five temporary Assistant Surgeons were appointed, who worked under the Assistant Surgeon whose services have been lent to the Dhárwár Sanitary Association. The total number of inoculations was 30,392, of which 13,715 were done by the special plague staff, 15,732 by Medical Officers in charge of dispensaries, and 704 by private medical practitioners and others.

50. In Sholápur District 7,769 deaths were recorded against 6 in the previous year. Sholápur City was infected in December 1914 and suffered from a fairly severe epidemic during the early months of 1915. From Sholápur the infection was carried between January and May to 16 villages in Sholápur Táluka, to Pandharpur, and to Randweechi in Mádha Táluka. During the hot weather infection was carried over in Sholápur City, and in Dhotri, Musti and Darganhali villages of the táluka, and from these centres the infection spread rapidly from September onwards. During the second half of the year the important epidemiological points are the infection of Bársi Town from Sholápur in September, and the second infection of Pandharpur towards the end of the year. Sholápur, Bársi and Pandharpur served as distributing centres. It may be taken for granted that, had it been possible to prevent the infection of these places, the epidemic in the district would not have occurred. The significance of this statement will be apparent when preventive measures are considered. During the last half of the year 58 out of 302 towns and villages in Sholápur Táluka were newly infected: 77 out of 245 towns and villages in Bársi Táluka, and 11 villages out of 171 in Pandharpur Táluka.

The special plague preventive staff under Major Kunhardt and Dr. Chitre worked in Sholápur District throughout the year. Three inoculators were appointed and performed 219 inoculations in 43 towns and villages. Two hundred and eighty persons were inoculated by Medical Officers in charge of dispensaries and 10,569 by private medical practitioners and others. There was a total of 13,040 inoculations in the district, of which 11,108 were in Sholápur City itself. The special inoculators did not move about the district sufficiently.

51. In Sátára District 3,633 deaths were recorded against 2,033 in the previous year. At the end of 1914 infection persisted in the tálukas of Wálwa, Shirála, Koregaon, Tásgaon, Karád, Mán, Khatáv, Khánápur and Wái. It was fairly well spread: it died down rapidly till in May it persisted in Tásgaon and Turchi of Tásgaon Táluka, in Islámpur of Wálwa Táluka, and Shirváde of

Karád Táluka. From June on the infection spread rapidly and 94 towns and villages were infected before the end of the year: of these, 30 were in Wálwa Táluka, 22 in Tásgaon Táluka and 16 in Karád Táluka.

The special plague preventive staff under Major Kunhardt and Dr. Chitre worked in the district throughout the year. Inoculation was practised in 17 towns and villages, and 5,017 persons were inoculated against 4,022 in 1914. Two inoculators were appointed and performed 1,231 inoculations in 12 towns. Ninty-five were done by Sub-Assistant Surgeons and 369 by private medical practitioners and others.

In Sátára City the rat trapping campaign was continued: 38,541 rats were destroyed against 31,413 in 1914. The cost of the operations, excluding the pay of the temporary Assistant Surgeon in charge, came to Rs. 3,144. Two imported cases died in Sátára during February, but there was no epidemic in the city for the second year in succession.

52. In Násik District 7,139 deaths were recorded against 1,118 in 1914. It will be remembered that the district was infected in the latter half of 1914 through Igatpuri, and in December the epidemic was felt in Násik City, in 4 towns of Niphád Táluka, and in Manmád of Chandwad Táluka. Up to March the disease spread, and then died down till in May the infection persisted in 3 towns in Niphád Táluka, 1 in Násik Táluka, 1 in Chandwad, 1 in Dindori and 1 in Sinnar.

From July onwards 151 towns and villages were infected; of these, 47 were in Niphád Táluka, 15 in Chandwad, 14 in Sinnar, 13 in Dindori and 12 in Násik.

Thirty-nine of the remaining 50 villages were in Báglán Táluka, and the important epidemiological factor here was the infection in July of Satána, a town with a population of nearly 4,000.

Two temporary Assistant Surgeons were appointed, one of whom was instructed to carry out rat destruction operations.

Destruction of rats was taken in hand in Násik, Pimpalgaon Baswant, Vadner, Vinchur, Nanduri, Thergaon, Shivádi, Rawalas, Kotháre, Mouze Sukene, One, Páchora Budruk, Velápur and Vadalibhoi. Násik was baited from 28th August to December 1915. Forty-seven thousand five hundred and eighty-two baits were laid but only 1,689 rats were destroyed. The number of rats destroyed in the various towns and villages could have no effect on the course of the disease. The measures were very inefficiently carried out.

Four thousand five hundred and sixty-eight inoculations were carried out in 30 towns and villages. Two thousand one hundred and five persons were inoculated by the special inoculators, 2,406 by Medical Officers in charge of dispensaries and 57 by private medical practitioners and others.

53. In Poona District the epidemic was a great interest. One thousand eight hundred and thirty-eight deaths were recorded against 1,810 in 1914. In the early part of the year Poona City suffered fairly severely, but in June no cases or deaths were reported. In the latter half of the year the disease never really caught hold, although there were several small centres of infection following imported cases. Haveli Táluka, outside Poona City and Cantonment, was practically free from plague during the last half of the year. Junnar Táluka was badly infected during the first half of the year, and the infection was undoubtedly carried over during the off season in the village of Pimpalwandi: during the last half of the year 13 villages of this táluka and 7 of the adjacent Khed Táluka were infected: the total number of villages infected in the district during this period was 36. Ten out of the remaining 16 villages were in Máwal Táluka, and followed the infection of Lonávla. Since the introduction of the hydro-electric works Lonávla has become an important labour centre, with ready opportunity for the importation of infection. Lonávla was re-infected in July and passed through a severe epidemic.

The special plague staff under Major Kunhardt and Dr. Chitre worked in the district throughout the year and the failure of the epidemic to lay hold of Poona City may possibly be due to their efforts. Two temporary Assistant

Surgeons were appointed and inoculated people in 23 towns and villages. Four thousand nine hundred and eighty-six persons were inoculated against 12,269 in the previous year. The temporary staff performed 4,335 inoculations, Medical Officers in charge of dispensaries 298, and private medical practitioners and others 353. Two hundred and thirty-five inoculations were performed in Poona City by private medical practitioners.

54. In Sind 3,135 deaths were registered against 1,531 in 1914. The year opened with a very severe epidemic in Hyderabad City and the infection of Karáchi and Kotri. During the early months of the year every district in Sind reported cases, but the epidemic only persisted in Karáchi, where deaths were reported up to November.

Inoculation was confined practically to Karáchi, Shikárpur and Hyderabad Cities, and reached the total of 9,959. Only 23 inoculations were performed by private medical practitioners. In Hyderabad a temporary Assistant Surgeon was appointed and he performed 1,435 inoculations.

Inoculation.

55. One hundred and twenty-eight thousand and eight hundred persons were inoculated as against 62,497 in 1914. There was progress in Native States, 21,392 inoculations being performed against 435 in 1914. In Native States the inoculation was performed by Medical Officers of the States. The number of inoculations performed is as follows:—

Native States.

Jamkhandi	6,194	Aundh	232
Kolhápur	5,741	Khairpur	201
Sángli	2,396	Akalkote	107
Miraj Senior	2,314	Dhar	76
Savnur	1,079	Mewás	68
Miraj Junior	825	Dharampur	68
Mudhol	591	Kurundwad	65
Vishalgad	444	Rámdurg	8
Ichalkaránji	438	Káthiáwár Agency ...	6
Jath	509		

Nineteen temporary Assistant Surgeons were employed for portions of the year: 5 were employed in Dhárwár District, 2 in Belgaum District, 2 in Bijápur District, 2 in Násik District, 3 in Sholápur District, 2 in Sátára District, 2 in Poona and 1 in Hyderabad (Sind).

They inoculated 44,213 persons in 285 towns and villages. The total cost of the temporary staff came to Rs. 29,014, and the average cost of each inoculation was 10·5 annas against 15·6 annas in 1914.

At Civil Hospitals and Dispensaries 29,925 persons were inoculated—two thousand two hundred and ninty-four in Násik District, 298 in Poona, 280 in Sholápur, 95 in Sátára, 1,072 in Belgaum, 4,559 in Bijápur, 15,732 in Dhárwár, 794 in Thána, 121 in Kolába, 1,291 in Ahmednagar, 84 in Ratnágiri, 436 in Kánara, 528 in Surat, 38 in Broach, 57 in Ahmedabad, 9 in Thar and Párkar, 2,108 in Sukkur and 17 in Karáchi.

Three thousand nine hundred and eighty-five inmates of Jails were inoculated, and private medical practitioners in Poona City, Wái and Islámpur in Sátára District; Athni, Belgaum and Ankli in Belgaum District; Bijápur, Hubli and Herinarti in Dhárwár District inoculated 3,456 individuals. In Bombay City the number of inoculations was 3,921.

Inoculation is still looked on with disfavour by the bulk of the rural population; the fluctuation in the number of inoculations each year depends very largely on the risk of infection run by the inhabitants of large towns. If any towns or villages in their vicinity are infected the numbers of inoculations for that year will be large. The difference in the attitude towards inoculation of rural and urban populations is seen in all districts, and the number of villages in which persons are inoculated is a small percentage of the total infected.

56. One hundred and eighty-eight persons who had been inoculated were attacked by plague, of whom 91 died; in 1914 the corresponding figures were 92 and 40. Detailed information is given in the table:—

District.	Number of inoculation.	Total plague deaths.	Attacks among inoculated.	Deaths among inoculated.
Dhárwár	30,392	5,976	67	26
Bijápur	19,694	969	37	18
Poona	4,986	1,838	21	12
Sholápur	13,040	7,769	17	12
Ahmednagar	1,812	445	13	7
Belgaum	7,952	9,526	11	6
Kánara	436	46	8	2
Násik	4,568	7,179	6	2
Sátára	5,017	3,633	4	4
Sukkur	2,718	374	3	2
Karáchi	5,894	1,429	1	0
			188	91

Sixty-three or nearly 70 per cent. of the fatal cases among inoculated occurred within one month of inoculation.

57. Two facts are brought out by the epidemic of the year:

(*a*) the danger of villages which are infected late in the preceding epidemic.

(*b*) the rapid dissemination of infection from large towns which are trade or labour centres.

It seems very clear that the elimination of plague depends on the possibility of stamping out infection wherever it exists during the off season and on the protection of important towns from infection. Into the former the enquiry under the Indian Research Fund is continuing: a small area—Poona District—is under observation for the coming year. It must not be considered that the result of this work up to date has been unsuccessful. The history of the epidemic in Poona District during 1915 is very encouraging.

58. The protection of important towns presents many problems incapable of solution in the immediate future; among them are the grain trade, weekly markets, fairs and the ever present housing question. In the meantime these towns can be protected by continuous trapping; this has been proved in the past in the Punjáb, and the experience gained there has recently been applied to Sátára in this Presidency. The two secrets of success are continued operations throughout the year, and a sufficiency of traps. Sátára has been free from plague for two years at a cost of about rupee one per inhabited house. The question which inhabitants of important towns in the plague area have to decide is "Is freedom from plague worth the average annual expenditure of rupee one per house."

Small-pox.

59. 1,425 deaths were registered as compared with 4,209 in 1914 and a decennial mean of 6,015. 772 deaths were among males and 653 among females.

The annual mortality since 1904 is given below:—

Year.	Number of deaths from Small-pox.	Year.	Number of deaths from Small-pox.
1904	4,289	1910	4,600
1905	16,985	1911	4,727
1906	4,063	1912	6,331
1907	1,862	1913	9,833
1908	2,526	1914	4,209
1909	5,019	1915	1,425
Total ...	34,744	Total ...	31,125
Mean ...	5,791	Mean ...	5,187

The ratio per 1,000 was 0·07 as compared with 0·21 in 1914 and a quinquennial mean of 0·30.

The highest death-rates were returned from Kánara (0·64), Násik (0·28) and Thána (0·11).

60. Towards the end of the year the town of Málegaon in Násik District was infected, and a death-rate of 6·81 resulted. Small-pox is almost always present in this town, and epidemics are frequent. A certain section of the population consistently refuse vaccination, and the deaths are confined almost without exception to the children belonging to this community: the advent of an epidemic is timed by the collection of sufficient children since the date of the last epidemic. Gokarn Town suffered fairly severely with a death-rate of 0·94; and Poona City and Bombay City returned death-rates of 0·41 and 0·37, respectively.

61. In the Southern Registration District 182 cases in 9 infected villages were investigated, and it was found that 74 had been vaccinated previously and 108 unvaccinated. Of the vaccinated none died, of the unvaccinated 26.

A similar investigation into 288 small-pox cases in other Registration Districts revealed a case mortality of 6·04 among vaccinated against 20·75 among the unvaccinated. Taking the Presidency as a whole the case mortality among vaccinated was 4·3 against 21·9 for unvaccinated.

These figures afford very striking evidence of the protection afforded by vaccination: the contrast would be still more remarkable if the people would accept the principle of revaccination.

Respiratory Diseases.

62. 63,364 deaths (33,588 males and 29,776 females) were registered as compared with 65,941 in 1914 and a decennial mean of 58,874.

The annual number of deaths registered since 1904 is given in the following table:—

Year.	Number of deaths from Respiratory diseases.	Year.	Number of deaths from Respiratory diseases.
1904	59,579	1910	59,880
1905	54,537	1911	51,470
1906	60,615	1912	70,712
1907	58,068	1913	59,418
1908	54,671	1914	65,941
1909	53,433	1915	63,364
Total ...	340,903	Total ...	370,785
Mean ...	56,818	Mean ...	61,798

The death-rate per 1,000 of population was 3·23 against 3·37 in 1914 and 3·18 the mean of the previous 5 years.

63. In rural areas the death-rate was 2·58 against one of 6·61 for urban areas. The highest death-rates for urban areas were recorded in Kaira (14·12), Mirpurkhas (13·18), Borsad (12·14), Ahmedabad (11·82), Broach (10·91), Umreth (10·91), Jambusar (10·68), Nadiád (9·98), Surat (9·88), Ahmednagar (9·39), Hubli (9·27), and Bombay City (8·16).

64. In Gujarát Registration District 3,204 deaths from phthisis were recorded giving rise to a death-rate of 1·14 per mille. The urban death-rate was 2·76 against one for rural areas of 0·71.

The principal urban death-rates are given in the following table :—

Town.	Total death-rate.	Male death-rate.	Female death-rate.
Ahmedabad	4·14	3·83	4·52
Dákore	2·95	3·05	2·84
Nadiád	2·65	2·16	3·21
Dhandhuka	2·61	2·89	2·36
Ránder	2·52	1·39	3·53
Broach	2·49	2·08	3·03
Kaira	2·47	2·99	1·88
Dholka	2·43	3·55	1·82
Surat	2·37	1·91	2·86
Viramgám	2·31	2·80	1·82

For the whole District the disease was rather more prevalent in males than in females, but the above table shows that in a few towns the female death-rate is higher than the male. 2,187 deaths or nearly 70 per cent. occurred in persons between the ages of 20 and 50.

65. In the Southern Registration District (Belgaum, Dhárwár, Bijápur and Kánara) 1,539 deaths from phthisis were registered against 1,574 in 1914. The death-rate was 0·47. The urban death-rate was 1·22 against one of 0·39 for rural areas.

The highest urban death-rates were recorded in Navalgund (3·69), Gokák (3·55), Gokarn (2·82), Ránebennur (2·2), Belgaum (2·16), Nipáni (1·67), and Gadag-Bettigiri (1·28).

66. In the Central Registration District (Poona, Ahmednagar, Sholápur, Sátára and Rátnagiri) the most serious feature in the history of phthisis is the gradual infection of the Ratnágiri Districts—urban and rural areas—by persons returning from Bombay City. Emigration to Bombay is common, the infected individual returns to the District in the advanced and infectious stage of the disease to die a few weeks after return. A partial investigation has been made by Mr. Da Gama, the acting Deputy Sanitary Commissioner: out of 168 cases examined 50 had come direct from Bombay City. This importation of infection is a serious matter for those districts which supply Bombay with labourers.

67. In Sind 641 deaths from phthisis were recorded, the great majority (518) being from the towns of Hyderabad, Tando Adam, Kotri and Karáchi; the respective death-rates were 4·16, 2·99, 1·65 and 1·33. Of the 518 urban deaths 280 were in females and 238 in males.

68. In the prevention of tuberculosis the provision of hospitals for advance cases, tuberculosis dispensaries and sanatoria in which individuals can be cured or trained in the disposal of infectious expectoration, are undoubtedly wise measures. The experience of Great Britain has shown, however, that such measures, though limiting the spread of infection will not eliminate the disease. The removal of the cause of the disease is required, and the essential cause is the unsatisfactory manner in which the people are housed.

In dealing with phthisis, as with all sanitary problems, it is necessary to remember that there are usually two distinct sides—measures of immediate urgency, in which may be classed the provision of sanatoria, etc., and measures which uproot the cause. The latter owing to financial and other reasons may have to be relegated to the future, but it is of importance, while making provision for the former, to keep them in mind with a view to their ultimate realisation.

Injuries.

69. There were 8,113 deaths recorded, of which 4,581 were among males and 3,532 among females. The figures for the previous year were 7,670 and the mean of the preceding ten years was 7,125.

The number of deaths registered annually as due to injuries since 1904 is shown below :—

Year.	Number of deaths from injuries.	Year.	Number of deaths from injuries.
1904	6,333	1910	6,885
1905	6,586	1911	7,452
1906	6,830	1912	7,175
1907	6,799	1913	7,711
1908	7,109	1914	7,670
1909	7,029	1915	8,113
Total ...	41,686	Total ...	45,006
Mean ...	6,948	Mean ...	7,501

70. Deaths by sexes are arranged under the various heads and compared with those in 1914 in the following table :—

Causes.	1915.			1914.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,410	1,746	3,156	1,304	1,744	3,048
Poisoning	87	60	147	108	68	176
Hanging	132	74	206	124	84	208
Wounding	875	434	1,309	780	352	1,132
Wild beasts	37	10	47	24	7	31
Sanke-bite	1,104	646	1,750	1,008	527	1,535
Rabies	145	67	212	122	60	182
Railway accidents	78	9	87	65	19	84
Other causes	713	484	1,199	756	518	1,274
	4,581	3,532	8,113	4,299	3,379	7,670

71. There was an increase of 215 in the deaths caused by snake-bite over the previous year's figures. The highest number of deaths occurred in Ratnágiri (271), Thána (178), Sátára (139), Kaira (109), Ahmedabad (105), Lárkána (83), while the lowest (5) was recorded in the City of Bombay.

There is always difficulty in identifying the species of snake responsible for the death and no information is available as to the number of persons bitten who recovered. Some indication as to the class of snake (chiefly) is afforded by a study of the interval elapsing between bite and death.

The following table gives the information for certain districts :—

District.	Number of deaths.	Under 6 hours.	Per cent.
Ratnágiri	87	21	24
Sátára	97	53	54
Sholápur	31	29	93
Ahmednagar	35	23	66
Poona	47	29	62
Belgaum	47	35	74
Dhárwár	36	25	69
Bijápur	26	18	69
Kánara	14	7	50

It is probable that in Ratnágiri District, where over 24 hours elapse between bite and death in 70 per cent. of the cases, the common snake belongs to the viper class. In Belgaum, Dhárwár, Bijápur and Kánara Districts 37 out of 130 deaths were definitely ascribed to the cobra.

In the majority of instances no treatment was adopted: evidence of only three cases being taken to local dispensaries is forthcoming: in three instances Brunton's lancet was used.

72. 212 deaths were reported from rabies. The highest number (28) was reported from Sátára District. Among towns the highest number (10) was returned from Bombay.

73. There were 539 suicidal deaths (271 males and 268 females) against 531 (260 males and 271 females) in 1914.

The highest number of suicides were reported from Thána (65), Bombay City (59), Dhárwár (54) and Bijápur (48). Of the 65 deaths in Thána, 30 were the result of drowning, 33 hanging and 2 wounding; of the 59 deaths in Bombay City, 13 were the result of drowning, 5 hanging, 9 wounding and 32 poisoning; of the 54 deaths in Dhárwár, 24 were the result of drowning, 24 hanging and 6 poisoning; and of the 48 deaths in Bijápur, 21 were due to drowning, 24 hanging and 3 poisoning.

Other Causes.

74. 138,006 (70,900 males and 67,106 females) deaths were registered as compared with 159,720 in 1914 and the decennial mean 138,877.

The number of deaths registered under this heading since 1904 is as follows:—

Year.	Number of deaths from other causes.	Year.	Number of deaths from other causes.
1904	144,800	1910	149,735
1905	132,666	1911	130,871
1906	142,478	1912	162,143
1907	124,575	1913	133,815
1908	124,275	1914	159,720
1909	128,495	1915	138,006
Total ...	797,289	Total ...	874,290
Mean ...	132,881	Mean ...	145,715

The death-rate was 7·05 against 8·15 in 1914.

75. In the Southern Registration District 106 deaths were recorded from measles against 1,303 in 1914: 81 were among children under 5. In the Gujarát Registration District 231 deaths were registered; of these 163 were in—Ahmedabad (84), Surat (45) and Broach (34)—towns. In Ahmedabad during November and December there was a fairly serious epidemic associated with broncho-pneumonia.

Out of the 231 deaths 207 were in children under 5.

76. The numbers of deaths from chief diseases occurring in each Collectorate by months are shown in annual Forms Nos. VII to XII.

SECTIONS VII and VIII.—No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

Municipal Work.

77. One hundred and fifty-seven city and town Municipalities worked in the mofussil during the year, of these 4 Municipalities—Yemnur and Gudguddapur in Dhárwár District and Gokarn and Ulvi in the Kánara Collectorate—were as usual appointed for short periods to deal with the sanitary conditions during seasons of pilgrimage.

The combined municipal income amounted to Rs. 1,24,87,79, of which a sum of Rs. 60,67,924 or 48·5 per cent. was expended on "public health and convenience"; an increase of Rs. 4,06,204 over the corresponding expenditure in the previous financial year. On water-supply, drainage and conservancy the expenditure was Rs. 34,43,269 or 27·57 per cent. The details of improvement in water-supplies and drainage are given in Appendix I. The sanitary Board sanctioned the preparation of 4 new projects; 20 schemes of water-supply and drainage were either completed or made progress, and 56 others were under investigation. Deep borings for water were undertaken in 7 towns and for ascertaining rock foundations in 4 towns.

The extreme variations in climatic conditions must lead to great variations in the quality of waters supplied to towns from rivers, lakes and shallow wells. The object of every public health authority should be the issue of a water of uniform quality: this will not be attainable until by frequent analysis it is possible to ascertain the variations in quality, the reasons for variations and the success of any methods adopted for the purification of the water. The institution of laboratories for the routine examination of waters is an urgent public health requirement: a scheme with this object in view was submitted during the year.

In conservancy methods there is considerable room for improvement everywhere: some progress was made during the year in the disposal of waste matter, but little in the equally vital matter of collection. The Municipality of Surat acted on a personal suggestion to depute the Health Officer to Násik to study the system of night-soil disposal. Dr. Pinto adopted the system and by introducing certain modifications necessitated by local climatic conditions, made it such a success that Surat is now the centre for instruction of Municipal Officers in the Northern Division. Dr. Munsiff, the Deputy Sanitary Commissioner, has taken up the matter very energetically with the result that the system has been or is likely to be adopted in Broach, Dholka, Viramgám, Prántij, Godhra and Bulsár.

Thána Municipality has also commenced work on these lines.

In the Southern Division the chief Officers of Dhárwár, Hubli and Bijápur were met at Násik and the system explained. The local adoption is still under consideration.

The incidence of taxation per head of population decreased from Rs. 2-8-3 to Rs. 2-7-7 and that of income from Rs. 4-3-6 to Rs. 3-13-6.

The individual rate of contribution to the Municipal income varied as usual within wide limits from annas 4·2 in Yankanmardi in Belgaum District to Rs. 10·3 in Karáchi Town.

Health Officers and Sanitary Inspectors.

78. Under the scheme for the appointment of Health Officers and Sanitary Inspectors, a portion of whose salaries is borne by Government, first class Health Officers were employed during the year at Ahmedabad, Surat and Poona; one second class Health Officer at Broach and one temporarily at Pandharpur; and Sanitary Inspectors at Ahmedabad (5), Surat (4), Broach (2), Nadiád (1), Viramgám (1), Lárkána (1), Sukkur (2), Belgaum (1), Gadag-Bettigiri (1), Hubli (3), Bijápur (1), Dhulia (1), Násik (1), Poona (4), Sholápur (2), Ahmednagar (1) and Pandharpur (1).

In addition the Municipalities of Karáchi and Hyderabad in Sind maintained independent Health Officers: but the gentleman employed in Hyderabad has no public health qualification.

At present these Health Officers and Sanitary Inspectors do not submit copies of their reports to Government through the Sanitary Commissioner. An account of their work and the difficulties experienced can only be given as a result of inspections by Deputy Sanitary Commissioners.

In Ahmedabad the improvement in the registration of births noted in a previous portion of the report is a great achievement, and is an index of activity and keenness on the part of the Health Officer.

Dr. Pinto in Surat has already done much in improvement of registration in the training of dais, and in the appointment of lady health visitors.

In Poona there is little progress to report as a result of the appointment of a Health Officer: this may in some measure be due to change in the incumbent, for, the permanent Health Officer accepted a temporary appointment in the Indian Medical Service.

Three changes in the health officership of Broach checked advance: the present holder of the appointment has been bound down for two years and improvement may be expected in the coming year. Pandharpur enjoyed the services of a Health Officer for a short time only.

The chief grievances of Health Officers lie in the lack of control over the public health staff, and the expense of maintaining a conveyance necessary for efficient inspection. Municipal Commissioners and Chief Officers, who must necessarily be the Chief Executive Officers of Municipalities, are empowered to depute control of subordinates, and it would help Health Officers if this power were exercised in the case of those subordinates with whom they must come in intimate contact in the course of their work. The question of conveyance allowance will appeal to the sense of justice and desire for efficiency on the part of Municipal Councillors, for it is only right that the Municipality should defray expenses necessitated by its service, and in a large town efficiency of inspection is only possible in the case of rapid transit between different portions of the town.

District and Táluka Local Boards.

79. The 26 District Local Boards and 216 Táluka Local Boards dealt with a population of 18,062,041.

The income during the year ending 31st March 1915 was Rs. 84,74,757 against an expenditure of Rs. 84,42,463. The sum of Rs. 3,86,398, less than 5 per cent. of the income, was spent on water-supplies, drainage and other public health works. The incidence of income per head of population decreased from annas 7 and pies 7 to annas 7 and pies 3, while the incidence of taxation decreased from annas 3·2 to 2·10.

Grants for improvement of village water-supply.

80. Under Government Resolution, General Department, No. 3617, of 1st May 1915, a grant of Rs. 62,000 was made for the improvement of village water-supplies and it was distributed as follows:—

	Rs.		Rs.
Northern Division ...	20,000	Southern Division ...	10,000
Central Division ...	20,000	Sind Division ...	12,000

The allotments were expended in making new tanks and deepening existing tanks; in constructing new wells, and boring operations; repairing old wells and in building water troughs and cisterns.

Owing to the greatly reduced rainfall in certain parts of Guzerát inquiries were made into the possibility of shortage in the water-supplies and the Deputy Sanitary Commissioner circulated instructions for the protection of scanty supplies with a view to warding off cholera during the spring of 1916.

Government of India grant of 7 lákhs.

81. Under Government Resolution No. 3965, dated 13th May 1915, the grant of Rs. 7 lákhs made by the Government of India was distributed among the District Local Boards of the Presidency and Sind:—

	Rs.		Rs.		Rs.		Rs.
Sind Division ...	*1,54,000	Northern Division .	1,82,000	Central Division ...	2,08,000	Southern Division.	1,56,000
Karáchi ...	22,000	Ahmedabad ...	33,000	East Khándesh ...	41,100	Belgaum ...	30,000
Hyderabad ...	20,000	Kaira ...	36,000	West Khándesh ...	29,200	Dhárwár ...	38,000
Sukkur ...	20,000	Panch Maháls ...	25,000	Násik ...	29,000	Bijápur ...	29,000
Nawábshah ...	20,000	Broach ...	31,000	Ahmednagar ...	29,200	Kánara ...	15,000
Thar and Párkar.	20,000	Surat ...	36,000	Poona ...	26,700	Kolába ...	19,000
Lárkána ...	28,000	Thána ...	21,000	Sátára ...	30,000	Ratnágiri ...	25,000
Upper Sind Frontier ...	14,000			Sholápur ...	22,800		

* Balance in reserve with the Commissioner in Sind, Rs. 10,000.

The sums were incorporated in the general revenues and were expended mainly on the improvement of communications; aid was given to the equipment and maintenance of Medical and Veterinary dispensaries; to the repair and construction of wells and tanks; and to the provision of dharmashalas.

As a portion of the money is spent on the repair and construction of wells it may be possible in the future to devote a moiety of similar grants to the eradication of guineaworm by the conversion of step-wells into draw-wells. The distribution of guineaworm has received a great deal of attention during the past 7 or 8 years, and many suggestions for dealing with step-wells have been sent in. A remarkable instance of the benefit given by such a simple measure is furnished by the village of Palûs in Sátára District, with a population of about 4,000. In the old days a very large percentage suffered from guineaworm, it is said about 50 or 60 per cent. The favourite source of water was a step-well. Through the foresight of a revenue official the step-well was converted into a draw-well about 20 years ago. Guineaworm has almost disappeared; there are now only 7 cases against as many hundreds in old days. The 7 cases existing now live in two houses (5 in one and 2 in the other), and draw water from a small step-well.

Palus is situated in an area in which guineaworm is very prevalent, and Dr. da Gama, the Acting Deputy Sanitary Commissioner, has made a close enquiry into the conditions existing in 11 towns and villages. The population of these villages is 42,814—21,900 being males and 20,914 females. At the time of the investigation there were 1,606 persons suffering or nearly 4 per cent. The incidence on males was nearly double that on females, and the largest number of sufferers was found among adults between 15 and 40.

The conversion of step-wells into draw-wells will not eradicate all ailments due to impure water, but, if properly done, will do away with guineaworm, and show the inhabitants of the affected areas the value of simple sanitary improvements.

Under the same Government Resolution noted above the sum of Rs. 25,000 was allotted to Sind for the improvement of communications:—Rs. 5,000 were given to Lárkána District; Rs. 4,000 to Sukkur; Rs. 3,500 each to Hyderabad and Thar and Párkar; Rs. 3,000 each to Karáchi, Nawabshah and Upper Sind Frontier.

Town Improvement Schemes.

82. Since 1908 improvement schemes have been completed in the following towns:—

Northern Division.	Central Division.	Southern Division.
Ahmedabad.	Faizpur.	Belgaum.
Broach.	Bhusával.	Dhárwár.
Bándra.	Násik.	Hubli.
Surat.	Ahmednagar.	Alibág.
Bulsár.	Poona.	
	Sholápur.	
	Pandharpur.	

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC

and Rs. 10,43,882-13-1 have been given by Government towards their execution.

Schemes are in progress in the following towns:—

Northern Division.	Central Division.	Southern Division.
Kalyán.	Ahmednagar.	Bijápur.
	Bhingár	
	Panchgani.	
	Bhusával.	

and grants totalling Rs. 67,720 have been sanctioned by Government.

Discretionary grants.

83. Out of discretionary grants placed at their disposal the Commissioners of the Northern and Southern Divisions allocated Rs. 4,344 and Rs. 3,096 respectively, for sanitary projects, such as pumps for wells, improvements to tanks, boring plant, playing fields for hostels, and grants to Sanitary Committees.

Overcrowding in villages.

84. Considerable progress has been made in the extension of village sites.

In Bársi Táluka of the Sholápur District extensions have been effected in 3 villages, and 3 further proposals are under consideration. The principle generally adopted has been exchange of land for that which is acquired instead of making cash payments.

In Bijápur District acquirement and allotment of land has been completed or is in course of completion in 7 villages of Bágalkot, Indi, Sindgi and Muddebihál Tálukas. The Collector has issued orders to all Revenue Officers to investigate and report monthly on any need for extension in the villages visited by them.

In Sátára District 41 acres of Inám land valued at Rs. 3,640 have been acquired for the extension of the village site of Lonand village in Khandála mahál. The owners of the land are being compensated by an annual payment of Rs. 127.

In Kaira District land for extension has been acquired in two villages in the Nadiád Táluka, 4 villages in Borsad Táluka and 2 in A'nand Táluka. Steps are being taken for extension of 3 more village sites—2 in A'nand Táluka and 1 in Borsad Táluka.

In East Khándesh Rs. 10,024 have been taken from 7 villages for the acquirement of land for extension. In Yáwal Táluka the village of Bhalod has paid Rs. 3,805: in Chálisgaon Táluka the villages of Munkhede, Hingone Sim, Chambhurdi, Bhambre Budruk and Tambole Khurd have paid Rs. 2,242, Rs. 1,550, Rs. 1,150, Rs. 1,092, and Rs. 184 respectively: in Bhadgaon peta the village of Valvadi has paid Rs. 690.

In Kolába District proposals for extension of village sites are under consideration.

In Násik District preliminary steps have been taken with regard to 4 villages in Násik, Chándor, Dindori and Málegaon Tálukas.

Notified Areas.

85. The number of notified areas was 23 exclusive of 6 in the Thána District created to exercise control over building operations.

The following statement shows the income and expenditure of these notified areas:—

District.	No.	Names of villages and towns.	Income including opening balance.	Expenditure.	Closing balance.	Remarks.
			Rs. a. p.	Rs. a. p.	Rs. a. p.	
Thána	1	Andheri ...	17,959 0 0	14,337 0 0	3,622 0 0	
	2	Borivli ...	8,184 0 0	6,142 0 0	2,042 0 0	
	3	Ghatkupar-Kirol ...	25,798 0 0	7,120 0 0	18,678 0 0	
	4	Malad ...	8,620 0 0	5,051 0 0	3,569 0 0	
	5	Santa Cruz ...	16,763 0 0	5,834 0 0	10,929 0 0	
	6	Vile Padle ...	9,155 0 0	2,709 0 0	6,446 0 0	
	7	Goregaon ...	These levy no taxes.			
	8	Mulund ..				
	9	Kandioli ...				
	10	Vikhroli ...				
	11	Bhandup ...				
	12	Bhayandar ...				
Broach	1	Palej ...	5,413 8 10	2,909 8 2	2,504 0 8	
Sholápur ..	1	Madha ...	3,641 14 2	2,261 8 11	1,380 5 3	
	2	Kurduwadi ...	4,256 5 8	2,205 5 5	2,051 0 3	
East Khándesh ...	1	Chalisgaon ...	22,473 14 8	16,792 7 9	5,681 6 11	
	2	Pachora ...	7,961 7 6	5,948 8 0	2,012 15 6	
Násik	1	Manmad ..	.....	.....	.....	Information not received.
	2	Nandgaon ...				
Bijápur	1	Muddebihal ...	2,698 12 10	881 0 0	1,817 12 10	
	2	Hungund ...	1,456 15 3	1,032 5 0	424 10 3	
Ratnágiri ...	1	Dapoli ...	5,122 1 4	2,484 5 8	2,637 11 8	
Belgaum ...	1	Bail Hongal ...	6,766 0 2	3,240 11 9	3,522 4 5	
	2	Khanapur ...	1,843 1 10	994 6 0	848 11 10	
	3	Chikodi ...	4,316 10 2	3,629 13 4	686 12 10	
Kolába	1	Karjat ...	3,102 8 5	1,187 9 6	1,914 14 11	
Dhárwár ...	1	Hangal ...	1,633 4 3	595 9 9	1,037 10 6	
	2	Hirekerur ...	449 9 4	75 0 0	374 9 4	
Poona	1	Dhond ...	731 3 2	333 13 7	397 5 7	

Several of these towns (*i.e.*, all notified areas in Sálsette, Muddebihál and Hungund in Bijápur District, Manmád and Nándgaon in Násik District, Chálisgaon and Páchora in East Khándesh District and Dápoli in Ratnágiri District) were inspected during the year and in some cases detailed reports were forwarded; action on the reports is being taken.

Sanitary Boards.

86. Three Sanitary Boards worked during the year in place of 2 in 1914: a Board replaced the Sanitary Committee at A'mod in Broach District with satisfactory results.

Village Sanitary Committees.

87. Excluding the district of Násik for which no information has been received Sanitary Committees were at work in 348 towns and villages.

In the *Southern Division* comprising the districts of Belgaum, Dhárwár, Bijápur, Kolába, Ratnágiri and Kánara there were 62 Sanitary Committees, of these 12 were newly established, *viz.*, 4 in Belgaum District (Konnur, Mamdápur, Wantmuri and Turkewádi), 1 in Bijápur District (Almel) and 7 in Dhárwár District (Unkál, Amargol, Shirguppi, Gajendragad, Tumminkatti, Kurtakoti and Dámbál).

Belgaum District.—Eighteen Sanitary Committees. The total income was Rs. 14,535-15-1, of which Rs. 5,477-6-4 were made by popular contribution. The expenditure came to Rs. 8,933-13-5½.

Bijápur District.—The total receipts of the 7 Sanitary Committees were Rs. 3,083-15-6 and the expenditure Rs. 3,685-14-10. Of the income, Rs. 1,031-8-11 were raised by popular contribution. It is proposed to replace the Sanitary Committee at Bádámi by a Notified Area Committee.

Kolába District.—Nine Sanitary Committees. The total popular contributions amounted to Rs. 559-10-0 out of the total income of Rs. 1,921-0-7. The expenditure came to Rs. 1,624-7-4. Increase in the number of Committees and the rates of popular contributions is proposed.

Ratnágiri District.—Two Sanitary Committees at Khed and Málwan. The receipts during the year come to Rs. 2,775-7-11, of which Rs. 1,177-14-8 were raised by popular contribution. The expenditure came to Rs. 2,891-18-6.

Dhárwár District.—The receipts of the 26 Sanitary Committees amounted to Rs. 14,365-14-10, of which Rs. 6,588-13-2 were raised by popular contributions. The expenditure and closing balances came to Rs. 13,523-7-8 and Rs. 12,011-14-1 respectively.

In the Sátára, Sholápur, East and West Khándesh, Ahmednagar, Poona and Násik Districts of the *Central Division* 56 Sanitary Committees worked, of these 7 were established during the year: 4 (Bhilawádi, Vasagade, Khánápur and Bagni) in Sátára District: 1 (Néri Budruk) in East Khándesh District; 1 (Natepute) in Sholápur District and 1 (Kánhur) in Ahmednagar District.

Sholápur District.—Three Sanitary Committees of which the receipts, expenditure and closing balances were Rs. 1,404-12-3, Rs. 549-5-0 and Rs. 855-7-3 respectively.

Poona District.—The receipts of four Sanitary Committees during the year came to Rs. 2,096-7-6 towards which Rs. 277-0-10 were raised by popular contribution. The expenditure and the closing balances were Rs. 1,045-5-9 and Rs. 1,051-1-9 respectively. The Sanitary Committee at Dhond was converted into a Notified Area in July 1915 and its closing balance was credited to the Accounts of the Notified Area Committee.

Sátára District.—The receipts of the 14 Sanitary Committees during the year came to Rs. 3,588-14-8, of which Rs. 2,359-13-8 were raised by popular contribution. The expenditure and closing balances were Rs. 4,989-5-11 and Rs. 2,066-10-2 respectively.

West Khándesh District.—Receipts of 9 Sanitary Committees were Rs. 7,510-3-6, of which the inhabitants contributed Rs. 3,065-5-0. Expenditure came to Rs. 8,079-13-8.

East Khándesh District.—Eleven Sanitary Committees. The total receipts amounted to Rs. 18,330-10-5, of which Rs. 7,390-8-0 were raised by popular contributions. The expenditure and closing balances came to Rs. 18,956-13-3 and Rs. 9,953-1-4 respectively.

Ahmednagar District.—The total of the 15 Sanitary Committees amounted to Rs. 8,841, of which Rs. 3,579 were raised by popular contributions. The expenditure and closing balances were Rs. 9,545 and Rs. 5,749 respectively.

In *Northern Division* comprising the districts of Thána, Ahmedabad, Surat, Kaira and Panch Maháls, 71 Sanitary Committees are established, of which 4 were created during the year—2 (Mota and Saribujraj) in Surat District; 1 (Ajarpara) in Kaira District; and 1 (Dáhánu) in Thána District.

Thána District.—The income of the 6 Sanitary Committees amounted to Rs. 5,783-10-2, of which Rs. 1,607-3-0 were raised by popular contributions. The expenditure came to Rs. 3,788-15-5.

Ahmedabad District.—The receipts during the year of the 8 Sanitary Committees came to Rs. 7,113, of which Rs. 3,119 were raised by popular contribution. The expenditure was Rs. 5,320 and the closing balance Rs. 4,866.

Surat District.—The inhabitants of the 14 villages in which Sanitary Committees worked raised Rs. 4,820-3-3 towards total receipts during the year of Rs. 10,778-15-0. The expenditure came to Rs. 12,560-14-7.

Kaira District.—The expenditure of the 18 Sanitary Committees came to Rs. 9,638 against receipts during the year of Rs. 10,824-6-5 towards which Rs. 5,120-6-11 were contributed by the inhabitants.

Broach District.—The receipts during the year of the 20 Sanitary Committees came to Rs. 5,218-7-3 towards which the inhabitants raised Rs. 3,522-9-7. The expenditure was Rs. 5,196-2-0 and the closing balance Rs. 10,764-7-6.

Panch Maháls.—Five Sanitary Committees worked throughout the year and expended Rs. 5,878-15-10 out of receipts during the year of Rs. 6,279-3-3 towards which the inhabitants raised a contribution of Rs. 2,605-11-3. Closing balances came to Rs. 3,395-0-6.

One hundred and fifty-nine Sanitary Committees worked in *Sind*: of these 7 were formed during the year: 2 (Chachar and Rajo-Nizamani) in Karáchi District: 4 (Mena, Junaji, Mirokhan and Dadu) in Lárkána District and 1 (Virawale) in Thar and Párkar District.

Karáchi District.—The receipts of the 30 Sanitary Committees during the year came to Rs. 6,695-5-2, of which Rs. 3,770-8-11 were raised by popular contributions. The Annual Government grant-in-aid was supplemented by an additional grant of Rs. 2,560. The expenditure amounted to Rs. 9,025-5-11.

Hyderabad District.—The receipts of the 21 Sanitary Committees came to Rs. 18,571-2-7. The expenditure and closing balances were Rs. 10,041-1-2 and Rs. 8,530-1-5 respectively.

Nawábshah District.—The receipts of the 18 Sanitary Committees came to Rs. 13,303-13-1, of which Rs. 4,958-1-7 were raised by popular contributions. The expenditure and closing balances were Rs. 12,212-3-1 and Rs. 7,031-4-0 respectively.

Thar and Párkar District.—The receipts of the 23 Sanitary Committees during the year amounted to Rs. 25,753-13-2 and the expenditure to Rs. 12,646-4-4. The closing balances were Rs. 13,107-8-10.

Sukkur District.—The receipts, expenditure and closing balances of the 17 Sanitary Committees amounted to Rs. 13,730-7-11, Rs. 7,799-10-11 and Rs. 5,930-13-0 respectively.

Lárkána District.—Forty-two Sanitary Committees. The receipts during the year amounted to Rs. 13,254-0-2, of which Rs. 6,110-11-0 were raised by popular contributions. The expenditure came to Rs. 15,498-2-3.

Upper Sind Frontier.—The population of the 8 villages in which Sanitary Committees were established raised Rs. 2,942-12-6 towards total receipts during the year of Rs. 16,022-5-9. The expenditure came to Rs. 5,908-13-0.

The average income of a Sanitary Committee is very small and is swallowed up by the expenditure on lighting, road repairs and a staff for keeping the village clean. Opinions may differ as to the proportion of income that should be spent on each head, but Sanitary Committees should bear in mind that their first duty lies in the cleanliness of the villages and their surroundings: when this has resulted, it will be time to look round for other improvements on which surplus funds can be expended.

From reports of Deputy Sanitary Commissioners and others it is clear that in many places the sanitary condition of the towns and villages has been improved. The chief difficulty in the attainment of uniformity in cleanliness lies in the absence of any one whose duty it is to supervise and direct the work of the scavenging staff. In the absence of funds such supervision must be in the hands of members of committees and the sanitary condition of a village is an index of the interest taken by individual members.

In many villages the improvement is appreciable, for instance in Dondaiche in West Khándesh District the Committee have taken steps to protect the water-supply and to guard the river beds: in several instances step-wells have been blocked up; this improvement is, however, much opposed in some parts of the district.

In Dhárwár District the Sanitary Committee of Chikenur are trying to improve the water-supply and take interest in the cleanliness of the village.

In Bijápur District the Sanitary Committees of Indi and Sindgi have done good work and have drawn up useful programmes for the coming year. The Sanitary Committee of Bágewádi has also done very well: this is one of the few towns in the Presidency where for many years an effort has been made to allocate definite sites for natural purposes: some success has resulted and in the programme for the coming year is the provision of a wall round the site reserved for women. The example of Bágewádi has been copied by the Sanitary Committee of Mangoli.

Ghoda and Manchar Sanitary Committees in Ambegaon peta of the Poona District have succeeded in making their villages clean and their attention has been directed by the Collector to the necessity for the destruction of prickly pear.

District Sanitary Associations.

88. Associations are working in the districts of Dhárwár, Belgaum, Bijápur and Broach, and it is probable that one will be started at Surat. Much advice to Sanitary Committees and possibly help in supervision can be given by members of these Associations.

The Commissioner, Southern Division, held a conference on sanitary matters at Belgaum during July: several papers were read and lantern demonstrations were given: both were attended by appreciative audiences.

Pilgrim Centres.

89. The year passed without the pilgrim centres being responsible for the outbreak of a serious epidemic: the festival at Gokarn, however, was followed by the occurrence of 48 cases of small-pox in the village of Hichkod of the Ankola Táluka.

The Bombay Pilgrim Committee met during the year and visited the 9 principal places, and 5 important stations concerned with the railway traffic.

The Acting Deputy Sanitary Commissioner was present at Pandharpur during the Ashadi festival, and it was largely due to his efforts that the sanitary conditions showed such marked improvement.

The Tavra Kadod fair, last held in 1888, took place in Broach District this year. The fair lasted over a period of 5 weeks. Dr. Munsiff, the Deputy Sanitary Commissioner, gave personal attention to the sanitary arrangements.

No epidemic disease resulted. Nearly 60,000 pilgrims arrived, some from places so distant as Násik, Pandharpur and Cawnpore.

At Alandi and Bhima Shankar, the sanitary arrangements for pilgrims made under the direction and through the zeal of Mr. J. Rodgers, the District Deputy Collector, were excellent.

SECTION X.

90. The Deputy Sanitary Commissioners visited 611 towns and villages. Complete sanitary surveys were made of those towns which had not been visited for several years. They entered remarks in 32 village sanitary inspection books, while Inspectors of Sanitation and Vaccination wrote in 241 books. Special visits were made to enquire into epidemics, and notice is directed to the investigation into sand-fly fever in Navalgund Táluka, and into malaria in Hubli by Dr. D'Mello, and into plague in Sholápur District by Dr. A. da Gama.

At the Belgaum Vaccine Institute much useful work was done on the possibility of cultivating the vaccine virus in the testicular tissue of rabbits, and into the possibility of producing a bacterially pure calf vaccine by the preliminary use of bacterial vaccines.

Dr. Mhaskar worked at the malaria investigation of Kánara District up to August. His report is a valuable one and will be submitted to Government in due course.

Captain Morison continued his investigations into the association of the water-supply with the annual epidemics of dysentery and diarrhœa in Poona. He has put the clarification of water by alum on a sound scientific basis, and by instituting the sterilization with chlorine of the Poona Cantonment and City water-supplies has been responsible for a great reduction in sickness and in the death-rate, especially of young children.

During the year the following changes have occurred among the officers of the Department.

Colonel Anderson, I. M. S. (retired), returned to take over the appointment of Deputy Sanitary Commissioner, Western Registration District.

Dr. R. D. Dalal, Deputy Sanitary Commissioner, Southern Registration District, went on special leave, and Dr. D'Mello was appointed to act in his place.

The Sanitary Commissioner was a member of the Pilgrim Committee and in addition visited over 50 towns for various purposes, such as the water-supply, selection of sites for schools, plague, and general sanitary advice.

F. H. G. HUTCHINSON, M.B., C.M., D.P.H.,
Major, I.M.S.,
Sanitary Commissioner.

Poona, 3rd July 1916.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD, BOMBAY PRESIDENCY, FOR THE YEAR 1915.

During the year under report there was no change in the constitution of the Board.

Three meetings of the Board were held to consider water-supply and drainage schemes and the following important questions were dealt with :—

(1) The report submitted by the Sanitary Commissioner for the Government of Bombay on the results of his experiments in connection with the experimental Sewage Installation.

(2) The pollution of canal water used for drinking and the means available for preventing such pollution.

(3) Appointment of a Consulting Engineering Chemist.

(4) Note on the examination of waters by the Sanitary Commissioner for the Government of Bombay.

(5) Question regarding the appointment of district health officers.

(6) Valuation of water works and sewerage installations.

(7) Appointment of a salaried secretary.

(8) Procedure to be adopted in connection with the preparation of sanitary schemes.

During the year the following grants were distributed to local bodies for minor sanitary works from the grant placed at the disposal of the Board :—

	Rs.
Central Division	1,960
Southern Division	9,830
Total ...	11,790

The Board sanctioned the preparation of the following projects :—

(1) Chálisgaon water-supply.

(2) Shikárpur water-supply.

(3) Shikárpur drainage.

(4) Sukkur drainage.

2. The projects sanctioned by Government were as follows :—

	Rs.
(1) Mátherán water-supply 1st stage	1,90,408
(2) Pen water works	17,715
(3) Water-supply at Násik-Sanction to plans and estimates in connection with	14,244
(4) Alandi water-supply	1,34,760
(5) Purification works for the Central Distillery at Khánápur	33,574
(6) Nandurbár water-supply	2,48,836
(7) Installation of Paterson Filter Plant at the Poona Cantonment water works...	1,73,133
(8) "V" Shaped drain in extension of the existing Poona Cantonment drain	12,176
(9) Revised plans and estimates for the extension of the Ahmedabad water works	11,94,499
(10) Improvements to Sukkur water-supply	4,36,256

3. Government were pleased to grant during the year a sum of Rs. 7,81,329 as grant-in-aid for Sanitary Works amongst the various Municipalities in the Bombay Presidency, the principal grants being as follows :—

	Rs.
Ahmedabad water-supply	2,75,000
Alandi water-supply	1,34,760
Lonávla water-supply	56,000
Sávda Municipality—Sanitary Improvements (Loan) ...	20,000

4. The following project was submitted to Government for sanction :—

	Rs.
Ahmednagar Sewerage	8,72,050

5. The following water-supply works were either in progress or completed during the year :—

Sind.

Karáchi.—Two pumping plants were installed and one mile in length of masonry conduit completed. Expenditure Rs. 1,09,476.

Hyderabad Sind Improvements.—The work, with the exception of the roofing of Shahakadam Tank and high service reservoir, was completed and handed over to the Municipality. Expenditure Rs. 38,567.

Sukkur.—Project for improvements to water works amounting to Rs. 4,20,222 was sanctioned by Government and its construction is held over pending provision of funds.

Jacobábad.—Municipal Tank rebuilt at a cost of Rs. 4,246.

Northern Division.

Ahmedabad.—Project for improvements to water works amounting to Rs. 11,94,499 was sanctioned by Government and the works in connection with jack well, manholes, fixing of Venturi Meter and pipe laying (5,742 feet) were completed. Expenditure Rs. 1,33,042.

Surat.—The work of fixing a Venturi Meter at Head Works was nearly completed and a water testing apparatus and Workshop erected. Expenditure Rs. 5,701.

Central Division.

Poona City.—Six thousand feet of new mains for High Level Service were laid and subsidiary water mains in connection with the two 21″ mains completed. Expenditure Rs. 10,613. During the monsoon season and until the close of the year the supply to the Poona City Settling Tanks was treated with chloride of lime. The cost of this treatment for the year amounted to Rs. 1,321.

Poona Cantonment.—Sterilization of water by means of chloride of lime was carried on at a cost of Rs. 2,250. The raw water was also chemically treated with alum at a cost of Rs. 8,080.

Lonávla.—Works in connection with the masonry dam and gravitation main were completed and the construction of the service cistern was in progress. Expenditure Rs. 1,31,229.

Bársi.—Construction of service reservoir was completed and materials for laying gravitation main collected. Expenditure Rs. 2,33,930.

Sholápur.—All the works that were in progress last year, such as, erection of engine and boiler suction, relaying gravitation mains were completed, with the exception of the workshop for which machine tools have been purchased but no building provided. Expenditure Rs. 1,56,466.

Ahmednagar.—Works in connection with the earthen dam, valve tower, waste weir and service reservoir were completed. Expenditure Rs. 1,01,744.

Karád.—Works in connection with intake pipe, tunnels, settling tanks, filter beds and pure water tank were completed. The pumping machinery has been delayed on account of the war but delivery is expected shortly. Expenditure Rs. 54,077.

Sátára Camp.—Resetting of valves, etc., and special repairs to service reservoirs were carried out at a cost of Rs. 4,791.

Southern Division.

Bijapur.—Miscellaneous works, such as laying of branch mains, erecting new stand posts, &c., were completed. Expenditure Rs. 8,853.

Hubli.—Chaukidars' quarters near high service reservoir were constructed and modifications in distribution system carried out. Expenditure Rs. 4,671.

Rájápur.—Miscellaneous works such as taking out, cleaning and relaying the pipes and other repairs were carried out at a cost of Rs. 5,485.

6. The following drainage works were either in progress or completed during the year :—

Sind.

Karáchi.—4·28 miles of gravitating sewers were laid in Civil Lines and Frere Town. Expenditure Rs. 90,990.

Northern Division.

Ahmedabad.—New boiler and feed pump installed and repairs to machinery were carried out. Expenditure Rs. 57,505.

Central Division.

Poona Drainage.—About 10,860 feet of branch sewers were laid, and 870 manholes, 42 flushing tanks and 15 ventilating shafts were constructed. About 4,000 house connections were made. The work of constructing percolating filters and sludge well was completed. Expenditure Rs. 1,35,629.

The question of the distribution of the effluent from the Poona City Sewerage Purification works has been referred by Government to a Special Committee.

7. An estimate amounting to Rs. 1,87,922 for the installation of a Paterson Filter Plant at the Poona Cantonment Pumping Station was sanctioned by Government. The work is under construction and good progress has been made towards completion.

8. Fifty-six projects were under investigation by the Sanitary Engineer to Government (27 by the Executive Engineer, Southern Sanitary District, 24 by the Executive Engineer, Northern Sanitary District, and 5 by the Sub-Divisional Officer, Sind Sanitary Sub-Division). Those nearing completion are :—

(1) Uran water supply.
(2) Improvements to Sátára water-supply.
(3) Islámpur water-supply.
(4) Nipáni water-supply.
(5) Thána water-supply.
(6) Borsad water-supply.
(7) Dholka water-supply.
(8) Godhra water-supply.
(9) Hyderabad (Sind) Improvements to water-supply.

Projects completed in the rough.

(1) Surat Sewerage.
(2) Hyderabad (Sind) Sewerage.
(3) Combined scheme for Belgaum City and Cantonment water-supply.

9. Borings for artesian water supplies were in progress at the following places :—

	Depth reached.
(1) Broach	1,535 feet
(2) Nadiád	932 „
(3) Dholera	610 „
(4) Gogha	445 „
(5) Khárághoda 3rd bore	317 „
(6) Khandála (Sátára District)	100 „
(7) Viramgaum	190 „

The water met with in the Nadiád and Khárághoda bores was passed as potable.

Borings for ascertaining rock foundations in connection with water-supply schemes were in progress at the following places :—

(1) Godhra.
(2) Kapadvanj.
(3) Jalgaon.
(4) Párola.

10. The services of the Analyst to the Sanitary Board were lent during the whole year to the Sanitary Commissioner for the Government of Bombay in connection with the special research work on the Poona waters.

11. The Mechanical Engineer to Government gave advice to the Executive Engineers concerned in designing suitable machinery for water-supply and drainage schemes. The pumping plants in charge of local bodies were thoroughly inspected by him during the year.

12. The Sanitary Engineer to Government carried out his annual tour throughout the Presidency including Sind and gave advice to the Local Bodies generally.

H. O. B. SHOUBRIDGE, M. Inst. C. E.,

Secretary, Sanitary Board,
Bombay Presidency

APPENDIX II (*a*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31st DECEMBER 1915.

I.—Summary.

The following summary shows the inspection and disinfection work done in the Port of Bombay in connection with outgoing and incoming vessels as well as those lying in the harbour and docks during the year ending 31st December 1915.

950 vessels of all sorts with 203,880 crew and passengers were examined as against 1,099 vessels with 309,121 crew and passengers during the preceding year.

The clothing, bedding and other articles of 61,420 members of crews and passengers of outgoing and incoming vessels and of members of crews of vessels lying in the Port were disinfected. Of these 49,530 were Asiatic and African members of crews, third class or deck European and Native passengers and pilgrims who left the Port of Bombay for ports out of India and 11,890 were members of crews, passengers and pilgrims who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while lying in the Port. In addition to the abovementioned numbers 4,922 baggage coolies and stevedores' men were disinfected in order to enable certain vessels to work cargo for a few hours after medical inspection and disinfection of their crews and passengers.

36 vessels on which cases of infectious diseases had occurred were disinfected and 4 vessels which carried pilgrims to Jeddah were thoroughly cleansed and freed from rats, cockroaches, etc., by means of sulphur dioxide gas generated in a Clayton apparatus. Besides the outgoing pilgrimships 9 incoming vessels (including 2 pilgrimships), 44 outgoing vessels were also fumigated. 1,621 persons among whom cases of small-pox had occurred were vaccinated. In addition to this number 2,308 outgoing pilgrims were vaccinated by a special vaccinating staff lent by the Municipality under the direction of the Police Commissioner.

II.—Outgoing Vessels.

2. In accordance with the Outward Plague Inspection Rules published under Notifications, General Department (Plague), No. 3892-P, dated 14th June 1899, and No. 2671-P, dated 2nd October 1912, which were superseded by Government Notification, General Department, No. 5331, dated the 6th July 1915, the medical examination of all vessels, crews and passengers proceeding to ports out of India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with berth accommodation, of fourth class and deck passengers and of all Asiatic and African servants who sailed on such vessels (with the exception referred to in para. 4 below) were carried out immediately before they left the Port of Bombay.

3. 791 outward bound vessels (including Asiatic sailing craft) with 78,479 crew and 84,246 passengers or a total of 162,725 persons were inspected as against 913 vessels with 88,495 crew and 167,415 passengers or a total of 255,910 persons during the preceding year.

4. The bedding, boxes and suspected articles of clothing, etc., of 34,183 Asiatic and African members of crews and of 15,134 third, fourth class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the clothing, bedding and other effects of 213 members of crews who sailed in Asiatic sailng craft for ports out of India were also disinfected.

5. A few vessels had cases of infectious diseases among their crews and passengers within 12 days prior to their departure from this port. The Bills of Health granted to these mentioned the diseases which had occurred on board as well as the measures which had been taken before their departure for the prevention of the spread of infection on board or its introduction at other ports.

III.—Incoming Vessels.

6. In accordance with the rules prescribed under the Epidemic Diseases Act, 1897, and the Indian Ports Act III of 1901, *vide*. Notification, General Department (Plague), No. 1645-P, dated the 12th March 1900, Notification, General Department, No. 625, dated the 1st February 1905, subject to the exceptions made in Government letter, General Department (Plague), No. 2128-P., dated the 31st March 1900, which were superseded by Governmet Notification, General Department, No. 5331, dated the 6th July 1915, medical

inspection and disinfection of vessels which were actually infected or suspected to be infected were carried out. All pilgrimships and all vessels which arrived from East African Ports were also inspected on arrival.

7. 146 incoming vessels of various kinds with crews aggregating 13,890 persons and 26,601 passengers were thus inspected during the year. Of the 146 vessels inspected 21 were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. Four were vessels from East African Ports with 475 crew and 1,300 passengers, among whom 21 cases of jigger had occurred. The cases were removed to the Jamsetji Jijibhoy and Arthur Road Hospitals for treatment. The clothing and bedding of the passengers were thoroughly disinfected before they were allowed to proceed to their homes. The clothing and bedding of the crew were also disinfected. One was a vessel from Jeddah with 111 crew and 1,296 pilgrims among whom 1 case of small-pox had occurred. The small-pox patient was removed on arrival here to the Arthur Road Hospital for treatment. The effects of the pilgrims were disinfected before they were made over to the Protector of Pilgrims for despatch to their destinations up-country. The vessel was disinfected the bedding and effects of crew being separately disinfected. The remaining 14 vessels arrived from other ports with 2,509 crew and 3,079 passengers among whom 2 cases of small-pox, 21 cases of measles and 3 cases of chicken-pox had occurred. The vessels and the clothing and bedding of the crews and passengers were disinfected.

IV.—Infectious Diseases on Vessels arriving and departing and in the Harbour and Docks.

8. Tabular Statement No. 1 gives the number of cases of infectious diseases which occurred on vessels arriving, departing and in the harbour.

It will be seen that 83 cases occurred on vessels arriving as follows :—3 cases of small-pox 52 cases of measles, 7 cases of chicken-pox and 21 cases of jigger.

At the inspections of crews and passengers of outgoing vessels three cases of small-pox were detected. One case of chicken-pox which was found in a convalescent stage among onward bound passengers was allowed to continue his voyage. Five cases of small-pox and one case of scarlatina were reported to have been landed at Aden from certain ships which arrived there from Bombay.

1 case of plague, 12 cases of cholera, 13 cases of small-pox, and 8 cases of chicken-pox occurred on vessels including Asiatic sailing craft lying in the harbour and docks.

9. Tabular Statement No. 2 gives separately details of infectious diseases on vessels in the harbour and docks. The clothing and bedding of the crews of these vessels aggregating 664 persons were disinfected. All these vessels were throughly disinfected. The vessel on which a plague case had occurred was also thoroughly fumigated.

V.—Disinfection and Fumigation of Ships.

10. During the year under report 93 vessels of all sorts were disinfected and fumigated.

11. Of the 93 vessels referred to in the foregoing paragraph the fumigation of 57 vessels including 4 outward and 2 inward pilgrim ships was carried out by means of the Clayton process under the direction of the Port Health Officer. 637 dead rats and innumerable cockroaches were found on these vessels after fumigation. In addition to this number the British India Steam Navigation Company had 19 of their vessels and 2 outside steamers fumigated by their own apparatus under the supervision of the Port Health Staff. This number is not included in Tabular Statement No. 1.

12. The Port Disinfection Station received every Monday clothing and bedding from various hospitals for disinfection. 527 bundles containing such clothing and bedding were disinfected as against 626 during the previous year. 1,875 blankets were also disinfected during the year at the request of the Senior Marine Transport Officer, Bombay. 4,922 baggage coolies to work cargo on outward bound vessels after obtaining Bills of Health were disinfected at the request of their Commanders and Agents.

VI.—General Health of the Shipping.

13. During the year under report 1,168 persons connected with the shipping were admitted into the various hospitals in the city. The St. George's Hospital admitted 410 European patients, of whom 10 died, 384 were discharged cured and 16 remained under treatment after the 31st December 1915. The Jamsetji Jijibhoy Hospital admitted 245 Asiatic patients, of whom 15 died ; the Gokuldas Tejpal Hospital 427 Asiatics of whom 59 died ; and the Arthur Road Hospital 86 Asiatics, of whom 7 died and 79 were discharged cured.

14. No deaths occurred in connection with the cleansing of bilges of ships during the year. There were 252 minor accidents on board of vessels which were lying in the harbour or docks.

VII.—Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

15. In accordance with the Government of India's Notification, Home Department Sanitary), No. 1606, dated the 18th July 1908, and Government Resolution, General Department, No. 4361, dated the 18th August 1909, and Government of India's Notification, Department of Education (Sanitary), No. 635, dated Simla, the 24th April 1912, reproduced in Bombay Government Notification, General Department, No. 2759, dated 30th April 1912, the Port of Bombay was open for the embarkation of Muhammadans going on pilgrimage to Mecca *viâ* Jeddah. Before the pilgrims embarked at Bombay the ships were thoroughly cleansed and freed from rats by means of the Clayton process. The pilgrims were subjected to a very careful medical inspection and their clothing and bedding to a thorough disinfection before they were allowed to embark.

16. The names of the ships, the numbers of pilgrims carried by them and the dates on which they left Bombay for Jeddah are given below :—

	Name of Vessel.	No. of pilgrims sailed.	Date of Departure.
1.	S.S. "Jehangir"	372 ...	26th August 1915.
2.	S.S. "Hejaz"	669 ...	8th September 1915.
3.	S.S. "Akbar"	768 ...	18th do.
4.	S.S. "Sardar"	623 ...	1st October 1915.
		2,432	

17. It will be seen that 2,432 pilgrims left during the season as against 11,922 in the previous year.

18. The classification of the pilgrims is as follows :—

14	Bombay City.	1	Mauritius.
67	Bombay Presidency (including Sind).	13	Chinese Territory.
47	Madras Presideney and Malabar.	172	Afghanistan.
95	Bengal Presidency.	2	Baluchistan.
1,496	Eastern Bengal and Assam.	8	Persia.
90	United Provinces and Oudh.	92	Russian Territory.
208	Punjab and North-West Fronter.	19	Arabia.
		24	Java.
5	Central Provinces.	2	Nepal State.
2	Ceylon (British Colony).	1	Straits Settlements.
63	Native States.	11	Unclassified.
2,087		345	

Total ... 2,432

19. 2,308 outgoing pilgrims were vaccinated before starting by a special staff placed under the Police Commissioner by the Municipality. Besides these, some pilgrims from other Provinces and Native States had been vaccinated before leaving their homes for Bombay. It is thus probable that nearly all the pilgrims had been persuaded to voluntarily undergo vaccination and, considering that most of these were illiterate and many fanatical, it reflects the greatest credit on the Pilgrim Department under the Commissioner of Police and others who aided in persuading so large a percentage to avail themselves of the measure.

20. The pilgrim Observation Camp at Perim was not opened during the year 1915 as per Government Order, General Department, No. 6923, dated 6th September 1915, and No. 8785, dated 15th November 1915.

21. From the medical diaries of the doctors in medical charge of pilgrim ships it appears that there were 4 deaths on board these ships between Bombay and Jeddah. The causes were old age, dysentery and heart disease.

22. During the season under report no doctor was appointed to the medical charge of a pilgrim ship unless he was in possession of either a degree, or at least the license of a recognized Indian University, or the qualification of a Military Assistant Surgeon and had his name and qualifications registered in the United Kingdom or in India in accordance with the Government of India Notification, Department of Education (Sanitary), No. 14, dated the 7th January 1915.

B.—Inward Pilgrim Traffic.

23. During the year under report, 4,093 pilgrims, including a number who left Bombay in the previous year's Haj, arrived from Jeddah in 8 vessels. The names of the ships and the number of pilgrims brought by each vessel as well as the number of cases of infectious diseases which were found among the pilgrims on arrival in Bombay are tabulated in Statement No. 3 which is appended to this report.

24. The total number of deaths which occurred at sea among the returning pilgrims was 38. The chief causes were old age, general debility, dysentery, diarrhœa and bronchitis.

25. One pilgrim ship had during her voyage from Jeddah to Bombay 1 case of small-pox. The patient was removed to the Arthur Road Hospital on arrival at Bombay. 1,296 pilgrims among whom the case occurred had their clothing and bedding disinfected before they were handed over to the Protector of Pilgrims for despatch to their homes. The effects of 111 members of the crew of the infected ship were also disinfected.

VIII.—Sanitary State of the Harbour and Foreshore.

26. The sanitary state of the harbour and of the various bandars, basins and docks was fairly satisfactory.

IX.—Cholera, Small-pox and Plague in the City of Bombay.

27. During the year under report 16 deaths from cholera, 359 deaths from small-pox and 599 deaths from plague occurred in the City of Bombay as against 221 from cholera, 252 from small-pox and 2,941 for plague during the preceeding year.

I.—Establishment.

28. The undersigned was in charge of the Port Health Department during the year under report.

29. The following list shows the names of the Medical Officers and subordinates and of the members of the Sanitary Police and clerical staffs who did duty under the Port Health Officer during the year:—

Names.	Period of Service.
	Y. m. d.
(1) Medical Staff.	
Dr. (Miss) S. Smith	1 0 0
Sub-Assistant Surgeon B. M. Bhatt	1 0 0
Do. do. F. H. Ankleśaria	1 0 0
Do. do. Z. M. Sheikh	1 0 0
(2) Sanitary Police Staff.	
Mr. A Dixon, Inspector	1 0 0
„ W. R. Marshall, Sergeant	0 3 15
„ G. Beldon, Sergeant	0 8 15
„ H. G. Lewis, Sergeant (for Pilgrim Season)	0 1 12
(3) Clerical Staff.	
Mr. Ramrao G. Kamalakar, Head Clerk	1 0 0
„ Shamrao S. Dhurandhar, Second Clerk	1 0 0
„ Dattatraya V. Gokhale, Third Clerk	0 11 0
„ Dattatraya N. Ratanjankar, Acting Third Clerk	0 1 0

30. In addition to the abovementioned Medical Staff the services of a Commissioned Medical Officer had to be engaged on several occasions when work was heavy, particularly in connection with the simultaneous departures of numbers of troop-ships. An extra Lady Doctor had also to be engaged from time to time.

31. The Medical, Sanitary Police and Clerical Staffs and the members of the Launch Disinfection and Menial Establishments carried out their respective duties with energy and zeal and to my entire satisfaction.

32. Moulvi Abdulla Ahmed, the Protector of Pilgrims, Mrs. M. Lennon, the Lady Superintendent of Pilgrims, Mr. H. M. Robottom, the Inspector of the Preventive Service, and the Dock Police under Superintendent C. Priestley rendered much help to the Port Health Staff, while carrying out the inspection and disinfection of pilgrims and in connection with their despatch from the Disinfection Station to the steamers by which they travelled.

33. I am also indebted for valuable assistance in the embarkation of pilgrims and otherwise to Mr. A. R. Bennett, Assistant Collector of Customs, who gave much of his time in order to help in securing harmonious working between the different departments concerned.

34. The shipping agents and commanders of vessels, as a rule, observed the regulations and carried out cheerfully the orders framed in connection with the Paris Sanitary Convention.

W. E. JENNINGS, M.D., D.P.H.,
Lieut.-Colonel, I.M.S.,
Health Officer of the Port.

Bombay, Port Health Office:
Town Customs House, dated 6th March 1916.

TABLE No. 1.

The following tabular statement gives a summary of the shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1915 :—

Vessels including country craft.	Number of vessels inspected.	Number of persons inspected including crew of vessels.	Number of Asiatic crew and 3rd class or deck passengers disinfected.	Number of vessels.		Number of persons vaccinated.	Diseases and number of each case.						
				Disinfected.	Fumigated.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Scarlatina.
1915.													
Entered	146	40,491	11,226	21*	9	1,621	...	...	3	52	7	21	...
Left	791	162,725	49,530	2	48		...	...	8	...	...	...	1
In harbour during the year ...	13	664	664	13	...	2,308	1	12	13	...	8	...	...
Total ...	950	203,886	61,420	36	57	3,929	1	12	24	52	15	21	1
Total for 1914 ...	1,099	309,121	89,658	39	66	9,255	6	9	74	9	5	...	4

* Two of these vessels sailed shortly after arrival for ports out of India.

TABLE No. 2.

The following table includes all steamers, square-rigged vessels and Native sailing craft which became infected while lying in the Port of Bombay during the year 1915 :—

Months.	Number of persons who were attacked with infectious disease at the Bunders and Docks.		Total number of infected vessels.	Total number of infectious diseases in the Bombay Harbour.					Number of crew disinfected.
	Plague.	Cholera.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	
1915.									
January	...	...	2	...	...	1	...	7	124
February	...	...	1	...	...	1	...	...	143
March	...	12	6	...	...	8	...	1	326
April	...	...	2	...	...	2	...	...	...
May	...	...	1	1	...	...	...	...	...
June	...	...	1	...	...	1	...	...	71
July	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...
Total ...	...	12	13	1	...	13	...	8	664
Total for 1914 ...	1	...	13	3	9	4	4	...	651

TABLE No. 3.

Statement showing the number of pilgrims who returned to Bombay from Mecca by vessels during the year 1915.

No.	Name of Ship.	Date of arrival, 1915.	Number of crew inspected.	Number of pilgrims inspected.	Number of deaths during voyage.	Number of cases of infectious diseases on board during voyage.		Remarks.
						On arrival.	During voyage.	
1	S.S. "Islami" ...	2nd January ...	74	566	4	...	...	
2	S.S. "Bahrein" ...	4th do. ...	86	583	8	...	...	
3	S.S. "Akbar" ...	30th do. ...	111	1,296	18	1	...	1 case of small-pox landed at Bombay.
4	S.S. "Lawoe" ...	16th February ...	84	134	1	...	...	
5	S.S. "Koweit" ...	2nd March ...	90	101	1	...	...	
6	S.S. "Koweit" ...	16th November ...	103	650	4	...	...	
7	S.S. "Sardar" ...	18th do. ...	81	371	1	...	...	
8	S.S. "Jehangir" ...	3rd December ...	134	392	1	...	...	
			763	4,093	38	1	...	

APPENDIX II (*b*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF KARACHI FOR THE YEAR ENDING 31st DECEMBER 1915.

I.—Outgoing Vessels.

During the year under report 423 steam vessels outward bound for Ports out of India were inspected by the Health Officer of the Port and were given Bills of Health as against 432 during the preceding year.

Of this number 189 vessels were proceeding to Aden, the Red Sea and Europe, and 234 to other Ports out of India including the Persian Gulf.

Bills of Health were also given after inspection to 462 country boats, as against 289 during the preceding year.

The native crews and deck passengers of all steamers and country craft proceeding to Ports out of India were medically inspected, their boxes scrubbed and finally rinsed out with a solution of perchloride of mercury, and their bedding and clothing disinfected by steam in the Equifex Stoves at the Port Health Disinfection Station, Kiamari, immediately before their departure from the Port of Karáchi.

II.—Incoming Vessels.

Nineteen steam vessels were inspected for the existence of infectious disease, as against fifty-three during the preceding year.

Of these 19 steamers, 1 steamer arrived from East Africa, and the remainder hailed from various other ports.

No country boats arrived from East African Ports during the year under report.

III.—Synopsis of Inspection and Disinfection performed.

The following tabular statement shows the number of vessels, crews and passengers inspected during the year under report:—

	Vessels.			Crews and passengers.		
	Steamers.	Country boats.	Total.	Steamers.	Country boats.	Total.
Incoming	19	...	19	7,302	...	7,302
Outgoing	423	462	885	102,231	6,433	108,664
					Total ...	115,966

Of the 115,966 crews and passengers who were medically inspected on their arrival at, or departure from, the Port of Karáchi, 44,631 crews and passengers also had their bedding and clothing disinfected. The corresponding figures for last year were 125,275 and 45,908, respectively.

IV.—Miscellaneous Disinfection.

On several occasions during the year the clothing and bedding of patients suffering from infectious disease as well as the clothing and bedding of "contacts" were received for disinfection from the Epidemic Diseases Hospital, the Civil Hospital, and other Institutions in Karáchi, also from private individuals, and were duly disinfected by steam in the "Equifex Stoves" at the Port Health Disinfection Station, Kiamari.

V.—P. & O. Mail Passengers.

Three hundred and three Saloon passengers proceeding to Europe *vid* Bombay were medically inspected on shore at Karáchi and given passes for direct transhipment to the P. & O. Mail Steamers at Bombay. The corresponding figure for last year was two hundred and twenty.

VI.—Plague.

No cases of this disease were detected during the year.

VII.—Cholera.

No cases of this disease were detected during the year.

VIII.—Small-pox.

Two cases of small-pox were removed from incoming vessels to the Epidemic Diseases Hospital, *viz.*, one from the S. S. "City of Paris" on the 19th March 1915, and the other from the S. S. "Nevara" on the 30th April 1915. The usual precautionary measures were carried out on board the steamers concerned on their arrival, and the crews of both these steamers were re-vaccinated before their departure from the Port of Karáchi.

IX.—Chicken-pox.

On case was removed to the Epidemic Diseases Hospital from the S. S. "Nordfarer" on the 25th March 1915, and the forecastle occupied by the patient (an Indian fireman), as well as the clothing, bedding and boxes of the crew were duly disinfected.

X.—Measles.

One case occurred on board the S. S. "Akbar" lying in the harbour; the patient (a Tally Clerk) was removed to the Epidemic Diseases Hospital for treatment, and the usual precautionary measures (redisinfection, etc.,) were duly carried out.

XI.—Parotitis (Mumps).

During the year seven cases of Mumps (all of which occurred among Indian firemen) were removed for treatment to the Civil Hospital from the undermentioned hired transports, *viz.*, two from the "Egra," three from the "Basilan," and two from the "Erinpura." The forecastles, as well as the clothing, bedding and boxes of the crews of all these transports were thoroughly disinfected before re-embarkation of troops.

XII.—Jigger.

No cases of this disease were detected during the year.

XIII.—Sleeping Sickness.

No cases of this disease were detected.

XIV.—Typhus Fever.

No cases of this disease were detected during the year.

XV.—Cases of other diseases detected.

During the year under report ten cases of illness, of all sorts (*viz.*, malaria, entric fever, pneumonia, etc.,) were detected during the course of the usual Medical Inspection of crews and passengers before embarkation, and were sent to the Civil Hospital, Karáchi, for treatment.

XVI.—Deaths from other diseases reported on boardship.

During the year under report, nine deaths from various diseases (*e. g.*, pneumonia, bronchitis, phthisis, sunstroke, heart-failure, etc.,) were reported as having occurred on board of vessels either in Karáchi Harbour or during the voyage to Karáchi.

XVII.—Emigrants.

During the year under report thirty-nine Emigrants proceeding to Mombassa, East Africa, *viâ* Bombay, were medically examined by the Health Officer of the Port, as Medical Inspector of Emigrants, and given certificates that they were in a fit state of health to undertake the voyage to East Africa, as required in section 65 (*1*) of the Indian Emigration Act of 1908.

XVIII.—Red Sea Pilgrim Traffic.

Owing to the abnormal shipping conditions brought about by the war, no pilgrimships sailed from, or returned with pilgrims to, the Port of Karáchi during the year under report.

XIX.—Pilgrim Camp.

About 500 intending pilgrims came to Karáchi from time to time during the Haj Season which lasted from the middle of May to the end of September 1915, and of this number about

100 availed themselves of the accommodation in the Pilgrim Camp. But, inasmuch as no steamers were forthcoming to convey them to the Hedjaz, the pilgrims were induced, in their own interests, to postpone their pilgrimage and return to their native places till normal conditions were restored.

XX.—Clayton Apparatus.

During the year three vessels were disinfected (fumigated) by means of the Clayton Apparatus before sailing hence for ports out of India, as shown in the following table :—

No.	Name of Steamers.	Date of Fumigation.	Remarks.
1	S. S. "Querimba" ...	7th August 1915 ...	At the request of the Agent.
2	S. S. "Sealda" ...	16th October 1915 ...	Do.
3	A. Government vessel ...	31st December 1915 ...	Do.

XXI.—Sanitary State of the Harbour.

The sanitary state of the Harbour was fairly satisfactory.

XXII.—Port Health Establishment.

During the year under report Assistant Surgeon G. de S. Fylinto, L. M. & S., acted as Health Officer of the Port from 1st January to 14th June 1915, on which date the undersigned, having returned from furlough, resumed charge of the Port Health Department.

The following list shows the names of the Medical Staff who did duty under the Health Officer of the Port during the year :—

Names.	Period of service.
	Y. m. d.
Assistant Surgeon G. de S. Fylinto	0 9 0
Assistant Surgeon Samuel Joseph	0 3 0
Sub-Assistant Surgeon Baharsing Toursing	1 0 0
Mrs. Lake, Lady Nurse	0 11 0
Mrs. Lobes, Acting Lady Nurse	0 1 0

Assistant Surgeon G. de S. Fylinto, L. M. & S., was transferred to Civil duty at Sávantvádi (Bombay Presidency, on 1st October 1915, and Assistant Surgeon S. Joseph, L. M. & S., was appointed in his place.

Mrs. Lake proceeded on one month's privilege leave from 19th November to 18th December 1915, and Mrs. Lobes was appointed to act for her.

The above Medical Staff carried out their responsible duties with tact and efficiency.

The Clerk, Mr. Mahomed Jaffer Sheikh Ibrahim, also performed his duties conscientiously and efficiently.

The office peons and all the members of the Disinfection Station, Steam Launch and Clayton Apparatus establishments worked satisfactorily.

Karáchi, 20th January 1916.

H. CAREY VENIS,
L.R.C.P., L.R.C.S., D.P.H.,
Health Officer of the Port, Karáchi.

APPENDIX II (*c*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT, ADEN, FOR THE YEAR 1915.

I.—General Remarks.

Shipping.—1,125 steamers and rigged vessels were granted bills of health during the year.

Of the above number 876 were sailing under the British flag and 249 under Foreign flags.

Bills of health issued to vessels having had cases of infectious diseases on board were annotated according to the circumstances of each case.

1,027 bills of health were issued to dhows during the year.

The accompanying Table A gives a list of vessels on board of which infectiou diseases existed on arrival. In the case of these vessels all sanitary precautions were taken to prevent the spread of the disease.

The following cases of infectious diseases were landed from the shipping :—

Small-pox	13
Scarlatina	1
Chicken-pox	8
Measles	5
Jigger	15

II.—Pilgrim Traffic.

Nine ships carrying pilgrims passed through this port during the year; all were medically inspected but they were not granted pratique.

Year.	Number of ships.	Number of pilgrims.	Number of deaths.	Remarks.
1915	9	5,555	7	

III.—Table A.

List of vessels on board of which cases of infectious diseases existed on arrival at this port, during the year ending 31st December 1915 :—

Date.	Name of Ship.	Nationality.	From	To	Number of cases.	Remarks.
.....	A hired transport ...	British ...	.....	.....	1 s.-p....	Landed.
17th January 1915.	S.S. "Kaisar-i-Hind"	Do. ...	London ...	Bombay ...	1 mls.	On board.
24th ,, ,, ...	,, "Merkara" ...	Do. ...	Calcutta ...	London ...	1 mls....	Do.
26th ,, ,, ...	,, "Arabia" ...	Do. ...	Bombay ...	Do. ...	1 c.-p.	Do.
30th ,, ,, ...	,, "Barosi" ...	Do. ...	Colombo ...	Do. ...	1 s.-p.	Landed.
4th February 1915.	,, "Falcon" ...	Do. ...	D'Jibouti ...	S. Coast ...	1 s.-p....	Do.
,, ,, ,, ...	,, "Tadjoura" ...	French ...	Do. ...	D'Jibouti ...	1 c.-p....	Do.
4th March 1915 ...	,, "Nirvana" ...	British ...	Calcutta ...	London ...	1 s.-p.	Do.
,, ,, ,, ...	,, "Cluny Castle".	Do. ...	London ...	Natal ...	9 mls....	On board landed.
					1 ,, ...	
7th ,, ,, ...	,, "Morea" ...	Do. ...	Do. ...	Sydney ...	1 ger. mls.	On board.
11th ,, ,, ...	,, "Tadjoura" ...	French ...	D'Jibouti ...	D'Jibouti ...	1 s.-p....	Landed.
					1 c.-p.	
16th ,, ,, ...	A War Ship ...	British ...	.....	.....	1 c.-p....	On board.
17th ,, ,, ...	S.S. "Clan Macaulay".	Do. ...	Calicut ...	London ...	1 c.-p.	Landed.
20th ,, ,, ...	,, "Kandahar" ...	Do. ...	Calcutta ...	New York ...	1 c.-p....	Do.
					1 s.-p.	
,, ,, ,, ...	,, "Porto di Adalia"	Italy ...	Mombassa ...	Assab ...	9 jiggs...	Do.

Date.	Name of Ship.	Nationality.	From	To	Number of cases.	Remaks.
26t March 1915...	S.S. "Budrie" ...	British ...	Massawa ...	Karáchi ...	1 c.-p. .	On board.
.....	A transport ...	Do. ...	.....	.....	4 mls....	Do.
28th March 1915 ...	S.S. "Kaisar-i-Hind"	Do. ...	London ...	Bombay ...	1 mls....	Do.
.....	A Hospital Ship ...	Do. ...	.....	.....	1 s.-p. ..	Landed.
.....	A War Ship ...	Do. ...	While in the	Harbour ...	1 c.-p....	Do.
18th April 1915 ...	S.S. "Moldavia" ...	Do. ...	London ...	Sydney ...	1 ger. mls.	On board.
20th ,, ,, ...	,, "Kaisar-i-Hind".	Do. ...	Bombay ...	London ...	1 mls....	Do.
25th ,, ,, ...	,, "Caledonia" ...	Do. ...	London ...	Bombay ...	1 ger. mls.	Do.
27th ,, ,, ...	,, "Chapra" ...	Do. ...	Colombo ...	London ...	1 s.-p....	Landed.
3rd May 1915	,, "Jelanga" ...	Do. ...	Bombay ...	Bombay ...	1 s.-p....	Do.
6th ,, ,, ...	,, "Novara" ...	Do. ...	Do. ...	London ...	1 s.-p....	Do.
13th ,, ,, ...	,, "Khiva" ...	Do. ...	Calcutta ...	Do. ...	1 s.-p....	Do.
17th ,, ,, ...	,, "Clan Macdougall".	Do. ...	Manila ...	Port Said ...	1 s.-p....	Do.
10th June 1915 ...	,, "Tadjoura" ..	French ...	D'Jibouti ...	D'Jibouti ...	1 c.-p....	Do.
12th ,, ,, ...	,, "Tadjoura" ...	Do. ...	Do. ...	Do. ...	1 c.-p....	Do.
13th ,, ,, ...	,, "Falcon" ...	British ...	S. Coast ...	S. Coast ...	1 c.-p....	Do.
.....	A transport ...	Do. ...	.....	.....	1 scart .	Do.
0t August 1915	S.S. Malwa" ...	Do. ...	Sydney ...	London ...	1 mls....	On board.
.....	A transport ...	Do. ...	.....	.....	1 scart .	Do.
29th October 1915	S.S. "Moldavia" ...	Do. ...	Sydney ...	London ...	4 mls....	Landed.
7th Nov. 1915	,, "Porto di Adalia"	Italy ...	Mombassa ...	D'Jibouti ...	2 mls.... 2 jigger.	On baord. Landed.
30th ,, ,, ...	,, "Arabia" ...	British ...	London ...	Sydney ...	1 c.-p. .	On board.
1st December 1915	,, "Tuna" ...	Do. ...	Zanaibar ...	Kamaran ...	4 jigger.	Landed.
3rd ,, ,,	,, "Zoroaster" ...	Do. ...	Bombay ...	Mostyn Deeps	1 s.-p....	Do.

N. B.—S.-P. stands for small-pox, C.-P. for chicken-pox, Mls. for measles, Scart. for scarlatina, and Ger.-mls. for German measles.

IV.—The following are the names and other information regarding pilgrimships, which passed through Aden during the year :—

No.	Date and month.	Names of Vessels.	Nationality.	From	To	Number of		
						Pilgrims.	Cases of infectious disease.	Deaths.
1	22nd January 1915 ...	S.S. "Akbar" ...	British ...	Jeddah ...	Bombay ...	1,483	.....	4
2	22nd February 1915..	,, "Koweit" ...	Do. ...	Do. ...	Do. ...	101	.....	...
3	7th September 1915...	,, "Jehangir" ...	Do. ...	Bombay ...	Jeddah ...	374	.....	...
4	19th ,, ,, ...	,, "Hejaz" ...	Do. ...	Do. ...	Do. ...	668	.....	1
5	25th ,, ,, ...	,, "Akbar" ...	Do. ...	Do. ...	Do. ...	768	.....	...
6	11th October 1915 ...	,, "Sardar" ...	Do. ...	Do. ...	Do. ...	622	.....	1
7	8th November 1915 ...	,, "Koweit ,, ...	Do. ...	Jeddah ...	Bombay ...	660	.....	1
8	,, ,, ,, ...	,, "Sardar" ...	Do. ...	Do. ...	Do. ...	486	.....	...
9	26th ,, ,, ...	,, "Jehangir" ...	Do. ...	Do. ...	Do. ...	393	.....	...

V.—Prevailing Diseases.

Malarial fever, diseases of respiratory and digestive system, ulcers and local injuries.

Epidemics.—There were no epidemics with the exception of small-pox, which prevailed in sporadic form in the Cooly lines, Tawahi, from 20th March to 30th June 1915. All sanitary precautions were taken to eradicate and prevent the spread of the disease. Such as isolation of cases, isolation of contacts, and disinfection of houses. Vaccination with Bombay Glycerinated Vaccine and Vaccine lymph from Kasauli was offered to the coolies and to the residents of Tawahi who came forward to have it done and to others who were willing to be vaccinated.

VI.—Statement showing the number of cases treated at the Small-pox Hospital, Maalla, during the year:—

Year.	Remaining as per last return.	Admissions for small-pox, measles and contact cases.	Deaths.	Protected.	Unprotected.
1915 ...	16	204	6	161	43

Source of admission.						Remarks.
Shipping.	Steamer Point.	Maalla.	Crater.	Interior.	Europeans.	
24 ...	164	6	4	6	2 (included)	

VII.—Statement showing the tubes received, their cost, and the vaccination operations performed during the year at the Port and in Tawahi:—

Number of tubes of Bombay Municipal Vaccine.	Cost.	Total number of vaccinations performed.	Result.	Remarks.
2,998	Rs. 749 8 0	7,114	All unknown.	

In addition to the above tubes, 20 tubes of Vaccine Lymph from the Institute, at Kasauli, were also obtained at a cost of Rs. 12-8-0 during the small-pox epidemic.

N. B.—It is impossible to have the results of vaccination of operations recorded, as these vaccinated are immigrants, who are vaccinated on landing, and a few coolies, who are homeless.

The vaccinations performed during the year are all nominally primary.

VIII.—Establishment.

Major J. L. Marjoribanks, M.D., D.P.H., I. M. S., acted from 1st January to 21st February 1915.

Captain R. B. S. Sewell, B.A., I. M. S., acted from 22nd February to 4th July 1915.

Dr. John C. Young, M.A., M.B., C.M., D.T.M., acted from 5th July to 31st December 1915.

Office establishment.

Mr. G. F. Andeen from 1st January to 12th March 1915, and Mr. H. C. DePenning from 13th March to 31st December 1915.

Peons.

Hassan Saif, from 1st January to 17th April 1915, then he resigned. Abdulla Saleh was appointed in his place from 18th April 1915 who resigned from 7th May 1915.

Syed Ibrahim was appointed in his place from 17th June 1915 and has been working since.

IX.—Launch Establishment.

1. Driver Hussein Noman, 1st January to 31st December 1915.

2. Succani Ahmed Suleman was on leave up to 31st January 1915, Lascar Muhammad Magon was appointed acting Succani during his absence. The Succani rejoined his appointment from leave on 1st February 1915 and resumed his duties.

3. Baisher Hizam, Stoker, 1st January to 31st December 1915.

4. Muktar Jaffer was appointed to act for Lascar Muhammad Magon from 1st to 31st January 1915. The latter reverted to his appointment as Lascar from 1st February 1915.

X.—Disinfecting Stove.

The establishment consisted of the following :—

1 Engine Driver, 1 Fireman, and 2 Lascars.

The services of the establishment are sanctioned annually by Government.

The establishment was employed throughout the year.

The services of the establishment have now been dispensed with as a temporary measure from 31st December 1915, except those of the fireman, whose services have been retained, and are absolutely necessary for the care of the Disinfecting Stove.

JOHN C. YOUNG,
Acting Health Officer of the Port, Aden.

Aden, 4th February 1916.

APPENDIX III.

The following table shows when the drainage systems and water-works were completed in the towns mentioned therein, with the average annual death-rate for the five-year period preceding the introduction and also the ratio for the five-year period ending with the year under report, exclusive of recorded plague mortality :—

The rural death-rates for each district are added for comparison.

District.	Táluka.	Town.	Date of completion of works of		Average annual death-rate for the five-year period ending with 1915 exclusive of plague.	Average annual death-rate for the five-year period preceding the introduction of drainage or water-supply or both.	Death-rate in rural circles for the year 1915.	Plague mortality in rural circles for the year 1915.
			Drainage.	Water-supply.				
1	2	3	4	5	6	7	8	9
.....	.....	Bombay	*a* 1879	*b* 1892	30·63	27·98	.....	.....
West Khándesh	Dhulia	Dhulia	.....	1896	24·61	32·50	27·17	.....
Ahmednagar	Ahmednagar	Ahmednagar	.....	1897	24·33	55·65	24·31	·35
Surat	Chorási	Surat	.....	1893	23·91	39·77	27·49	1·39
Ahmedabad	Daskroi	Ahmedabad	*c* 1893	1891	45·89	45·21	22·49	.....
Karáchi	Karáchi	Karáchi	*c* 1895	1894	31·89	35·15	6·77	·66
Sukkur	Sukkur	Sukkur	.....	1895	26·22	28·70	27·78	1·15
Thána	Sálsette	Bándra	.....	1896	23·88	23·01	22·54	·70
Kolába	Panvel	Panvel	.....	1895	23·47	19·50	23·38	·04
Dhárwár	Hubli	Hubli	.....	1894	27·59	25·70	27·55	3·44
Ahmedabad	Viramgám	Viramgám	*d* 1893	.....	35·59	69·28	27·54	.....
East Khándesh	Jalgaon	Jalgaon	.....	1909	28·86	31·56	31·32	.....
Sholápur	Pandharpur	Pandharpur	.....	1911	44·10	49·98	25·09	·25
Násik	Násik	Násik	.....	1913	32·15	52·73	36·69	7·71
Bijápur	Bijápur	Bijápur	.....	1913	20·99	30·98	23·67	1·02

a Drainage works commenced in 1879 are still in progress.

b Tánsa water-works completed in 1892. Besides these there are Vehár and Tulshi water-works.

c Drainage system partially introduced.

d In 1893 the gradient of the channel round the town was improved to carry away the sullage water that used to accumulate and stagnate round the town.

APPENDIX IV.

ANNUAL FORM No. I.—*Showing the Births registered in the Districts of the Bombay Presidency during the year 1915.*

1	2	3			4			5			6	7	8	9		
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
	Western Registration District.															
1	East Khándesh ..	521,546	512,668	1,034,214	26,912	24,941	51,853	26·02	24·12	50·14	107·90	20·09	..	26·27	24·97	51·24
2	West Khándesh ...	293,300	287,380	580,680	14,984	14,504	29,488	25·80	24·98	50·78	103·30	25·64	..	27·39	26·20	53·59
3	Násik	455,045	448,599	903,644	20,906	19,917	40,823	23·14	22·04	45·18	104·91	7·29	..	24·30	23·11	47·41
4	Thána	456,673	424,235	880,908	16,707	16,125	32,832	18·97	18·30	37·27	103·68	12·21	..	18·05	17·02	35·07
5	Kolába	295,085	298,972	594,057	12,615	12,145	24,760	21·23	20·44	41·67	103·88	14·63	..	20·04	18·68	38·97
6	City of Bombay ..	629,354	333,509	963,363	10,120	,612	19,732	10·50	9·98	20·48	105·28	..	3·69	10·67	10·23	20·90
	Central Registration District.															
7	Ahmednagar	475,163	468,828	943,991	22,016	20,484	42,500	23·32	21·70	45·02	107·48	19·44	..	20·98	19·91	40·89
8	Poona	538,238	526,568	1,064,806	19,464	18,317	37,781	18·28	17·20	35·48	106·26	9·35	..	17·56	16·34	33·90
9	Sholápur	391,311	376,706	768,017	17,982	17,338	35,320	23·41	22·58	45·99	103·71	6·83	..	21·64	20·55	42·19
10	Sátára	538,841	541,957	1,080,798	21,970	21,248	43,218	20·33	19·66	39·99	103·40	14·40	..	19·49	18·45	37·94
11	Ratnágiri	553,368	650,234	1,203,602	20,612	19,252	39,864	17·12	16·00	33·12	107·06	11·25	..	17·22	16·21	33·43
	Southern Registration District.															
12	Belgaum	478,458	463,490	941,948	19,819	18,909	38,728	21·04	20·07	41·11	104·80	·23	..	20·61	19·78	40·49
13	Dhárwár	519,995	505,091	1,025,086	20,917	20,443	41,360	20·41	19·94	40·35	102·32	8·81	..	19·33	18·57	37·90
14	Bijápur	433,866	429,061	862,927	17,350	16,765	34,115	20·10	19·43	39·53	103·43	15·87	..	20·70	20·00	40·70
15	Kánara	220,065	210,369	430,434	7,373	7,136	14,509	17·13	16·58	33·71	103·32	4·30	..	16·85	15·98	32·84
	Gujarát Registration District.															
16	Surat	326,839	327,135	653,974	12,791	12,066	24,857	19·56	18·45	38·01	106·01	9·30	..	19·06	18·11	
17	Broach	158,219	148,448	306,667	7,146	6,547	13,693	23·30	21·35	44·65	109·15	16·40	..	23·43	21·96	45·39
18	Kaira	370,174	321,468	691,642	15,851	14,184	30,035	22·92	20·51	43·43	111·75	18·70	..	22·60	20·59	43·19
19	Panch Mahals ..	165,902	156,751	322,653	7,555	7,141	14,696	23·42	22·13	45·55	105·79	27·52	..	22·62	21·68	44·30
20	Ahmedabad	432,124	395,213	827,337	18,349	16,611	34,960	22·18	20·08	42·26	110·46	13·97	..	20·18	18·22	38·40
	Sind Registration District.															
21	Karáchi	290,390	225,943	516,333	7,054	5,985	13,039	13·66	11·59	25·25	117·86	4·10	..	12·77	10·95	23·72
22	Hyderabad	337,526	273,584	611,110	6,180	4,539	10,719	10·11	7·43	17·54	136·15	·11	..	9·75	7·28	17·02
23	Thar and Párkar ..	241,274	192,091	433,365	5,948	4,756	10,704	13·73	10·97	24·70	125·06	9·12	..	11·73	9·26	20·99
24	Nawabshah	247,719	200,759	448,478	5,401	3,961	9,362	12·04	8·83	20·88	136·35	3·79	..	10·15	7·10	17·24
25	Lárkána	359,207	301,621	660,828	9,529	7,606	17,135	14·42	11·51	25·93	125·28	7·78	..	13·36	10·55	23·92
26	Sukkur	312,732	260,803	573,535	7,968	6,425	14,393	13·89	11·20	25·09	124·02	4·98	..	13·63	10·92	24·55
27	Upper Sind Frontier..	145,541	117,445	262,986	3,411	2,893	6,304	12·97	11·00	23·97	117·91	10·31	..	11·78	8·96	20·74
	Total for the Presidency ..	10,188,455	9,398,928	19,587,383	376,920	349,850	726,780	19·24	17·86	37·10	107·74	10·98	..	18·75	17·39	36·14

ANNUAL FORM No. II.—*Showing the* BIRTHS *and* DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1915.*

1	2	3	4	5			6		7			8
Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS 1911).			BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
	Western Registration District.											
1	East Khándesh	4,550	227	521,546	512,668	1,034,214	51,853	50·14	15,647	14,547	30,194	107·53
2	West Khándesh	5,439	108	293,300	287,380	580,680	29,488	50·78	7,616	6,980	14,596	109·11
3	Násik	5,879	154	455,045	448,599	903,644	40,823	45·18	17,200	17,033	34,233	100·98
4	Thána	3,576	246	456,673	424,235	880,908	32,832	37·27	11,174	10,897	22,071	102·54
5	Kolába	2,169	274	295,085	298,972	594,057	24,760	41·67	8,180	7,871	16,051	103·93
6	City of Bombay	22·5	41,483	629,854	333,509	963,363	19,732	20·48	12,719	10,568	23,287	120.35
	Central Registration District.											
7	Ahmednagar...	6,613	142	475,163	468,828	943,991	42,500	45·02	12,493	11,656	24,149	107·18
8	Poona	5,366	198	538,238	526,568	1,064,806	37,781	35·48	14,315	13,505	27,820	106·00
9	Sholápur	4,556	169	391,311	376,706	768,017	35,320	45·99	15,179	14,898	30,077	101·89
10	Sátára	4,818	224	538,841	541,957	1,080,798	43,218	39·99	13,859	13,798	27,657	100·44
11	Ratnágiri	3,989	302	553,368	650,234	1,203,602	39,864	33·12	13,238	13,080	26,318	101.21
	Southern Registration District.											
12	Belgaum	4,613	204	478,458	463,490	941,948	38,728	41·11	16,352	16,509	32,861	99·05
13	Dhárwár	4,604	223	519,995	505,091	1,025,086	41,380	40·35	16,214	16,115	32,329	100·61
14	Bijápur	5,707	151	433,866	429,061	862,927	34,115	39·53	10,298	10,126	20,424	101·70
15	Kánara	3,946	109	220,065	210,369	430,434	14,509	33·71	6,424	6,234	12,658	103·05
	Gujarát Registration District.											
16	Surat	1,651	396	326,839	327,135	653,974	24,857	38·01	9,578	9,197	18,775	104·14
17	Broach	1,468	209	158,219	148,448	306,667	13,693	44·65	4,367	4,298	8,665	101·61
18	Kaira	1,596	433	370,174	321,468	691,642	30,035	43·43	8,971	8,132	17,103	110·32
19	Panch Mahális	1,606	201	165,902	156,751	322,653	14,696	45·55	2,954	2,865	5,819	103·11
20	Ahmedabad	3,824	216	432,124	395,213	827,337	34,960	42·26	12,172	11,240	23,412	108 29
	Sind Registration District.											
21	Karáchi	11,782	44	290,390	225,943	516,333	13,099	25·25	6,181	4,740	10,921	130·40
22	Hyderabad	4,417	138	337,526	273,584	611,110	10,719	17·54	5,946	4,708	10,654	126·30
23	Thar and Párkar	13,638	32	241,274	192,091	433,365	10,704	24·70	3,684	3,069	6,752	120·08
24	Nawabshah	3,867	116	247,719	200,759	448,478	9,362	20·88	4,273	3,389	7,662	126 08
25	Lárkána	5,053	131	359,207	301,621	660,828	17,135	25·93	6,503	5,492	11,995	118·41
26	Sukkur	5,585	103	312,732	260,803	573,535	14,393	25·09	6,189	5,349	11,538	115·70
27	Upper Sind Frontier ...	2,644	99	145,541	117,445	262,986	6,304	23·97	1,946	1,646	3,592	118·23
	Total for the Presidency ...	122,978	159	10,188,455	9,398,928	19,587,383	726,780	37·10	263,672	247,941	511,613	106·34

1	2	9										10		
Number.	Districts.	DEATHS PER 1,000 OF POPULATION FROM							All causes.			MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.													
1	East Khándesh	·03	·03	·36	12·01	1·58	4·20	·30	10·68	30·00	28·37	29·19	38·89	37·74	38·33
2	West Khándesh	·04	·03	·01	12·06	·38	2·73	·32	9·56	25·97	24·28	25·13	38·28	35·38	36·83
3	Násik	·01	·28	7·90	12·33	1·15	4·36	·34	11·51	37·80	37·97	37·88	38·29	36·81	37·55
4	Thána	·05	·11	·69	15·99	·76	1·16	·61	5·69	24·47	25·69	25·06	27·02	26·86	26·94
5	Kolába	·00	·06	·26	15·34	1·74	1·07	·45	8·10	27·72	26·32	27·02	29·40	27·64	28·52
6	City of Bombay	·01	·37	·62	2·13	2·23	8·16	·58	10·07	20·19	31·69	24·17	30·40	44·83	35·45
	Central Registration District.													
7	Ahmednagar	·00	·00	·47	9·36	2·69	4·33	·26	8·47	26·29	24·86	25·58	32·30	30·40	31·35
8	Poona	·01	·07	1·73	11·50	2·53	3·61	·32	6·36	26·60	25·65	26·13	31·45	29·97	30·72
9	Sholápur	·01	·05	10·12	13 25	4·61	2·17	·42	8·53	38·79	39·55	39·16	35·15	35·19	35·17
10	Sátára	·00	·02	3·36	10·61	2·65	1·85	·52	6·58	25·72	25·46	25·59	29·60	28·01	29·25
11	Ratnágiri	·00	·08	·01	10·74	3·22	3·35	·44	4·03	23·92	20·12	21·87	23·60	19·79	21·65
	Southern Registration District.													
12	Belgaum	·00	·01	10·11	6·18	2·95	3·10	·54	12·00	34·18	35·62	34·89	31·70	32·37	32·03
13	Dhárwár	·01	·07	5·83	7·64	1·28	3·97	·39	12·35	31·18	31·91	31·54	33·50	38·02	35·71
14	Bijápur	·00	·03	1·12	8·94	1·96	2·67	·40	8·55	23·74	23·60	23·67	33·46	33·50	33·66
15	Kánara	·03	·64	·11	11·81	2·36	1·15	·36	12·95	29·19	29·63	29·41	31·91	30·61	31·27
	Gujarát Registration District.													
16	Surat	·00	·01	1·75	12·30	·93	7·38	·33	5·96	29·31	28·11	28·71	29·96	29·19	29·57
17	Broach	·00	·00	·77	15·05	·51	5·45	·43	6·00	27·60	28·95	28·26	36·23	37·21	36·70
18	Kaira	·00	·00	·15	9·18	·96	7·22	·59	6·63	24·23	25·29	24·73	32·79	34·82	33·72
19	Panch Mahális	·43	·00	·27	12·31	·16	·92	·41	3·53	17·81	18·28	18·03	22·54	22·91	22·72
20	Ahmedabad	·04	·00	·03	18·17	·51	4·91	·50	4·14	28·17	28·44	28·30	35·94	37·07	36·48
	Sind Registration District.													
21	Karáchi	·00	·04	2·77	10·11	·37	2·25	·38	5·23	21·28	20·98	21·15	20·61	21·28	20·90
22	Hyderabad	·00	·00	1·81	12·44	·25	1·10	·27	1·56	17·62	17·21	17·43	16·23	15·59	15·94
23	Thar and Párkar	·00	0·0	·01	13·14	·30	·88	·27	·98	15·27	15·97	15·58	17·52	17·69	17·59
24	Nawabshah	·00	·00	·28	15·49	·10	·21	·38	·62	17·25	16·88	17·08	15·37	15·07	15·26
25	Lárkhána	·00	·00	·03	16·68	·07	·12	·39	·81	18·10	18·21	18·15	20·40	20·88	20·62
26	Sukkur	·04	·01	·65	16·15	·26	·45	·36	2·20	19·79	20·51	20·12	19·00	20·24	19·55
27	Upper Sind Frontier ...	·00	·00	·15	11·79	·18	·31	·29	·94	13·37	14·02	13·66	14·21	15·19	14·67
	Total for the Presidency...	·02	·07	2·24	11·43	1·62	3·23	·41	7·05	25·88	26·38	26·12	29·80	30·06	29·93

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1915.*

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths registered during the year.	No.
	Western Registration District.														
1	East Khándesh	2,378	2,003	2,400	2,294	2,480	1,945	1,737	2,474	3,379	3,025	2,889	3,190	30,194	1
2	West Khándesh	1,436	1,193	1,350	1,247	1,109	893	810	1,084	1,294	1,231	1,283	1,666	14,596	2
3	Násik	2,760	2,513	2,688	2,185	1,986	1,872	2,184	3,200	3,517	3,994	3,405	3,929	34,233	3
4	Thána	1,987	1,722	2,122	1,746	1,494	1,345	1,290	1,726	1,722	1,864	2,251	2,802	22,071	4
5	Kolába	1,425	1,333	1,472	1,263	1,151	1,053	1,087	1,365	1,306	1,230	1,352	2,009	16,051	5
6	City of Bombay	1,789	1,823	1,980	2,075	2,039	1,700	1,759	2,004	2,062	2,081	2,004	2,171	23,287	6
	Central Registration District.														
7	Ahmednagar	1,498	1,439	1,655	1,803	1,884	1,900	2,099	2,577	2,448	2,402	2,080	2,364	24,149	7
8	Poona	1,986	1,733	2,028	2,040	2,103	2,004	2,021	2,821	2,844	2,758	2,500	2,912	27,820	8
9	Sholápur	1,331	1,314	1,312	1,697	1,652	1,844	1,761	2,754	3,067	3,951	4,335	4,559	30,077	9
10	Sátára	1,830	1,533	1,907	1,851	1,849	1,845	2,079	2,722	3,107	2,958	2,754	3,222	27,657	10
11	Ratnágiri	2,564	2,498	2,417	2,178	1,908	1,785	1,927	2,138	2,085	2,102	1,975	2,741	26,318	11
	Southern Registration District.														
12	Belgaum	2,060	1,767	2,218	1,930	1,743	1,834	2,506	3,468	3,888	4,081	3,938	3,878	32,861	12
13	Dhárwár	2,523	1,978	2,405	2,122	1,895	1,925	2,338	3,072	3,170	3,261	3,438	4,112	32,329	13
14	Bijápur	1,288	1,153	1,262	1,453	1,139	1,222	1,429	1,744	1,884	2,364	2,483	3,017	20,424	14
15	Kánara	1,235	1,140	1,093	912	810	813	923	973	946	1,165	1,161	1,487	12,658	15
	Gujardt Registration District.														
16	Surat	1,895	1,711	1,815	1,717	1,403	1,209	1,146	1,320	1,455	1,566	1,712	1,826	18,775	16
17	Broach	992	811	943	814	594	542	553	667	640	645	718	746	8,665	17
18	Kaira	1,579	1,535	1,686	1,421	1,296	1,297	1,392	1,423	1,296	1,274	1,439	1,465	17,103	18
19	Panch Maháls	546	486	556	501	439	381	376	486	530	464	488	541	5,819	19
20	Ahmedabad...	2,465	2,265	2,286	1,984	1,762	1,408	1,452	1,692	1,919	1,737	2,175	2,267	23,412	20
	Sind Registration District.														
21	Karáchi	1,120	1,095	1,163	1,170	1,238	848	494	496	664	694	876	1,013	10,921	21
22	Hyderabad	1,635	1,273	1,526	1,045	706	498	461	423	492	588	901	1,106	10,654	22
23	Thar and Párkar	794	690	794	548	512	349	318	245	304	417	747	1,034	6,752	23
24	Nawabshah...	957	856	1,038	599	403	381	393	309	377	612	828	909	7,662	24
25	Lárkána	1,903	1,322	1,221	854	754	641	658	635	701	958	1,142	1,306	11,995	25
26	Sukkur	1,393	1,038	1,184	1,021	771	666	618	603	674	963	1,299	1,408	11,538	26
27	Upper Sind Frontier ...	479	289	283	253	221	219	187	214	233	337	458	419	3,592	27
	Total for the Presidency ...	43,743	38,218	43,424	38,723	35,382	32,469	34,068	42,635	45,504	48,722	50,626	58,099	511,613	
	Ratio of deaths per 1,000 in each month... ...	2·23	1·95	2·22	1·98	1·80	1·66	1·74	2·18	2·32	2·49	2·58	2·97	26·12	

FORM No. IV.

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in the*

1	2	3		4		5		6	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	Western Registration District.								
1	East Khándesh	5,938	4,988	3,177	3,196	589	573	292	318
2	West Khándesh	2,738	2,366	1,640	1,556	329	309	153	144
3	Násik	4,467	3,797	3,112	3,151	1,134	1,316	713	672
4	Thána	2,528	2,221	1,969	2,200	639	714	305	290
5	Kolába	2,043	1,708	1,634	1,610	340	364	187	197
6	City of Bombay	3,475	3,074	1,181	1,335	306	413	287	344
	Central Registration District.								
7	Ahmednagar	4,420	3,561	2,418	2,182	369	417	216	207
8	Poona	4,284	3,291	2,786	2,573	630	603	408	423
9	Sholápur	3,842	3,091	2,922	2,831	812	908	761	828
10	Sátára	3,384	2,787	2,963	2,906	772	852	501	570
11	Ratnágiri	2,183	1,748	1,898	1,907	665	619	368	360
	Southern Registration District.								
12	Belgaum	2,929	2,390	2,592	2,956	1,401	1,589	983	1,149
13	Dhárwár	3,722	3,034	2,514	2,631	1,082	1,225	833	883
14	Bijápur	2,684	2,167	1,816	1,964	613	566	268	310
15	Kánara	1,532	1,453	723	760	223	246	153	99
	Gujarát Registration District.								
16	Surat	2,306	2,130	1,660	1,560	557	585	289	334
17	Broach	1,355	1,247	828	779	164	155	74	89
18	Kaira	2,297	2,428	1,584	1,462	313	250	177	161
19	Panch Mahális	885	793	502	451	154	148	66	76
20	Ahmedabad	3,287	3,048	2,036	2,050	359	369	244	253
	Sind Registration District.								
21	Karáchi	1,537	1,270	588	532	279	256	222	211
22	Hyderabad	931	806	539	468	249	243	231	211
23	Thar and Párkar	724	675	362	349	188	154	132	86
24	Nawabshah	690	607	419	361	191	149	167	94
25	Lárkána	1,241	1,096	560	523	300	286	201	165
26	Sukkur	1,537	1,380	716	589	248	251	198	172
27	Upper Sind Frontier ...	531	413	258	237	103	93	68	49
	Total for the Presidency ...	67,440	57,569	43,397	43,119	13,009	13,653	8,497	8,895
	Population according to Census of 1911	333,992	333,705	1,033,360	1,066,128	1,286,872	1,204,044	1,129,222	893,170
	Ratios per 1,000 living ...	201·92	172·51	42·00	40·44	10·11	11·34	7·52	9·96

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1915.*

7		8		9		10		11		12		13
15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
207	325	613	852	843	796	910	625	866	639	2,212	2,235	1
93	154	328	468	486	438	496	299	471	318	882	928	2
448	689	1,251	1,668	1,509	1,528	1,408	1,042	1,182	929	1,976	2,041	3
293	336	867	1,159	1,054	1,054	1,044	687	977	735	1,498	1,501	4
219	290	592	795	691	573	823	559	790	795	861	980	5
746	782	2,099	1,571	1,441	818	1,176	566	981	616	1,027	1,049	6
370	568	656	855	583	493	744	594	1,219	1,148	1,498	1,631	7
321	490	812	1,115	993	956	932	682	981	773	2,218	2,599	8
686	733	1,145	1,359	1,077	1,107	973	930	920	884	2,041	2,227	9
363	486	916	1,060	882	1,009	922	692	940	784	2,216	2,652	10
471	581	917	1,121	964	1,038	1,079	859	1,327	1,092	3,366	3,755	11
620	706	1,551	1,694	1,370	1,367	1,360	1,047	1,293	1,055	2,253	2,556	12
544	658	1,355	1,821	1,346	1,368	1,317	1,028	1,323	1,113	2,178	2,354	13
198	261	592	849	557	599	731	537	910	704	1,929	2,169	14
179	249	589	778	729	627	706	435	667	546	923	1,041	15
297	336	691	888	734	770	775	581	824	516	1,445	1,497	16
87	89	269	368	322	329	398	321	365	302	505	619	17
181	164	752	686	831	707	932	589	771	553	1,133	1,132	18
57	94	209	295	252	229	254	201	246	182	329	396	19
307	294	1,251	1,123	1,181	1,044	1,154	928	1,107	869	1,246	1,262	20
285	249	814	670	739	491	564	321	460	231	693	509	21
300	266	807	709	851	656	763	461	580	343	695	545	22
144	110	411	429	459	396	430	289	384	247	450	333	23
195	198	559	546	598	477	493	313	412	268	549	376	24
271	279	720	894	801	687	794	498	672	370	943	694	25
232	277	483	627	637	519	624	397	611	312	903	825	26
71	72	150	200	159	170	170	107	147	87	289	218	27
8,185	9,736	21,399	24,600	22,089	20,246	21,972	15,588	21,426	16,411	36,258	38,124	
852,854	752,848	1,903,139	1,801,211	1,562,195	1,370,275	1,064,455	949,249	611,654	564,582	436,814	476,708	
9·60	12·93	11·24	13·66	14·14	14·78	20·64	16·42	35·03	29·07	83·01	79·97	

ANNUAL FORM No. V.—DEATHS *registered according to* CLASSES

1	2	3						
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1911.						
		Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
	Western Registration District.							
1	East Khándesh	99,521	902,131	9,361	748	371	22,082	1,034,214
2	West Khándesh	31,323	474,200	3,796	586	233	70,542	580,680
3	Násik	47,705	843,705	7,902	1,867	840	1,625	903,644
4	Thána	41,979	786,925	2,985	43,341	5,105	573	880,908
5	Kolába	28,876	560,266	1,411	1,149	303	2,052	594,057
6	City of Bombay	179,346	664,042	20,460	41,273	50,931	7,311	963,363
	Central Registration District.							
7	Ahmednagar	47,959	855,676	15,284	23,622	222	1,228	943,991
8	Poona	48,936	991,738	11,731	8,280	2,695	1,476	1,064,806
9	Sholápur	55,377	703,215	7,643	1,412	334	36	768,017
10	Sátára	36,688	1,028,176	14,883	815	209	27	1,080,798
11	Ratnágiri	85,303	1,110,594	1,913	5,678	46	68	1,203,602
	Southern Registration District.							
12	Belgaum	77,075	817,797	41,533	5,313	159	71	941,948
13	Dhárwár	136,943	872,885	10,413	4,526	218	101	1,025,086
14	Bijápur	101,069	757,542	3,235	1,052	28	1	862,927
15	Kánara	28,731	383,624	1,251	16,729	14	85	430,434
	Gujarát Registration District.							
16	Surat	55,394	571,834	9,821	1,050	11,783	4,092	653,974
17	Broach	67,752	192,964	3,053	1,052	2,770	39,076	306,667
18	Kaira	63,280	598,165	6,609	23,490	81	17	691,642
19	Panch Maháls	22,273	274,339	1,542	1,810	204	22,485	322,653
20	Ahmedabad	92,018	693,209	35,899	3,584	1,639	988	827,337
	Sind Registration District.							
21	Karáchi	396,334	111,748	650	3,625	2,202	1,774	516,333
22	Hyderabad							611,110
23	Thar and Párkar ...	1,035,437	442,801	695	248	102	13,670	433,365
24	Nawabshah							448,478
25	Lárkána	557,517	101,687	1	21	6	1,596	660,828
26	Sukkur	414,671	155,156	3	207	96	3,402	573,535
27	Upper Sind Frontier	235,970	26,495	...	10	5	506	262,986
	Total for the Presidency ...	3,987,477	14,920,914	212,074	191,438	80,596	194,884	19,587,383

N.B.—This and all the other statements refer to Natives only and not to Europeans. "Hindus"

n the BOMBAY PRESIDENCY *during the year 1915.*

4							5						
NUMBER OF DEATHS REGISTERED.							RATIO OF DEATHS PER 1,000 OF POPULATION.						
ahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.	Mahomedans.	Hindus.	Jains.	Christians.	Pársis.	Other Classes.	Total.
2,421	27,690	60	16	6	1	30,194	24·32	30·69	6·41	21·39	1·62	·04	29·19
539	14,050	3	4	...	...	14,596	17·20	29·62	·79	6·82	...	...	25·13
1,698	32,470	30	29	3	3	34,233	35·59	38·49	3·80	15·53	3·57	1·85	37·88
1,094	19,943	8	966	50	10	22,071	26·06	25·34	2·68	22·29	9·79	17·45	25·05
778	15,195	6	16	1	55	16,051	26·94	27·12	4·25	13·92	3·30	26·80	27·02
5,495	14,614	890	1,143	959	186	23,287	30·64	22·01	43·50	27·69	18·82	25·44	24·17
1,106	22,919	17	72	1	34	24,149	23·04	26·78	1·11	3·05	4·50	27·69	25·58
1,261	26,370	43	89	37	20	27,820	25·77	26·59	3·67	10·81	13·73	13·56	26·13
2,109	27,773	144	34	3	14	30,077	38·08	39·49	18·84	24·08	8·98	388·89	39·16
971	26,322	355	7	...	2	27,657	26·47	25·60	23·85	8·59	...	74·07	25·59
1,812	24,404	21	78	...	3	26,318	21·24	21·97	10·98	13·73	...	44.12	21·86
2,680	28,137	1,893	144	3	4	32,861	34·77	34·41	45·58	27·10	18·87	56·34	34·89
4,036	27,907	298	80	3	5	32,329	29·47	31·97	28·62	17·68	13·76	49·50	31·54
2,234	18,118	61	11	...	...	20,424	22·10	23·92	18·86	10·46	...	...	23·67
583	11,652	31	387	1	4	12,658	20·29	30·37	24·78	23·13	71·43	47·06	29·41
1,197	15,076	166	20	244	2,072	18,775	21·61	26·36	16·90	19·05	20·71	506·35	28·71
1,736	5,893	30	10	52	944	8,665	25·62	30·54	9·83	9·50	18·77	24·16	28·25
1,470	15,409	72	147	...	5	17,103	23·23	25·76	10·89	6·03	...	294·11	24·73
473	4,010	18	10	1	1,307	5,819	21·24	14·62	11·67	5·53	4·90	58·13	18·03
2,645	19,764	866	91	26	20	23,412	28·74	28·51	24·12	25·39	15·86	20·24	28·29
6,757	4,044	...	63	38	19	10,921	17·05	36·19	...	17·38	17·26	10·71	21·15
6,730	3,892	5	2	...	25	10,654							17·43
3,313	3,421	6	3	...	9	6,752	14·84	21·75	17·26	24·19	...	3·95	15·58
5,324	2,316	1	1	...	20	7,662							17·08
9,722	2,266	...	...	...	7	11,995	17·44	22·28	...	...	...	4·39	18·15
6,708	4,809	2	...	...	19	11,538	16·18	30·99	666·67	...	...	5·58	20·12
2,995	597	...	...	...	...	3,592	12·69	22·53	...	...	...	...	13·66
77,887	419,061	5,026	3,423	1,428	4,788	511,613	19·53	28·09	23·70	17·88	17·72	24·57	26·12

lude Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the*

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	A.—DISTRICTS.										
	Western Registration District.										
1	East Khándesh ...	903,053	24	29	370	11,120	1,449	3,706	9	7	194
2	West Khándesh ...	538,084	22	16	2	6,755	200	1,422	1	3	108
3	Násik	813,511	9	121	6,284	10,451	877	3,458	2	1	189
4	Thána	791,861	47	83	414	13,354	487	872	25	35	227
5	Kolába	567,043	...	37	40	8,933	1,012	595	9	3	193
	Central Registration District.										
6	Ahmednagar ...	888,096	...	...	393	8,431	2,419	3,706	3	5	180
7	Poona	859,267	1	21	1,319	10,498	1,845	2,784	3	4	222
8	Sholápur	660,338	...	36	5,187	8,435	2,416	1,218	4	3	216
9	Sátára	1,025,700	1	20	2,729	11,148	2,700	1,825	8	17	335
10	Ratnágiri	1,136,710	1	91	12	12,307	3,626	3,795	13	5	211
	Southern Registration District.										
11	Belgaum	869,243	1	4	8,538	5,574	2,647	2,612	16	11	381
12	Dhárwár	885,871	15	72	5,291	7,278	984	2,972	17	31	232
13	Bijápur	792,582	...	26	684	7,455	1,554	1,995	22	23	241
14	Kánara	382,278	11	265	46	4,796	875	390	5	...	129
	Gujarát Registration District.										
15	Surat	512,580	2	6	362	7,400	301	3,513	8	16	140
16	Broach	242,979	...	...	178	4,090	102	1,060	3	5	74
17	Kaira	594,309	...	1	108	5,431	538	4,081	8	20	198
18	Panch Maháls ...	291,248	40	...	86	3,565	29	256	5	3	65
19	Ahmedabad ...	568,530	29	3	25	10,342	145	1,240	9	15	153
	Sind Registration District.										
20	Karáchi	351,401	1	10	200	4,100	44	140	3	6	65
21	Hyderabad... ...	523,747	...	2	438	6,431	72	121	2	3	53
22	Thar and Párkar ...	424,563	...	...	...	5,368	127	293	2	1	60
23	Nawabshah ...	436,579	...	...	78	6,606	39	86	4	3	105
24	Lárkána	628,336	...	...	6	10,375	39	53	4	3	151
25	Sukkur	468,207	25	...	117	6,999	55	61	3	2	123
26	Upper Sind Frontier.	251,646	...	...	...	2,908	43	79	1	3	48
	Total of Districts ...	16,407,762	229	843.	32,907	200,150	24,625	42,333	189	228	4,296
	B.—TOWNS.										
	East Khándesh District.										
1	Jalgaon	17,195	...	...	1	147	27	87	...	...	6
2	Bhusáwal	18,312	10	...	2	242	31	56	...	...	9
3	Chopda	17,008	...	...	...	152	19	70	...	...	9
4	Dharangaon ...	15,607	...	...	...	119	11	115	...	...	3
5	Párola	14,177	...	2	1	117	7	70	...	...	2
6	Amalner	13,232	...	...	...	136	7	48	...	...	2
7	Erandol	13,144	...	...	...	166	31	72	...	...	4

DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year 1915.*

			11	12	13										14
RIES.					RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
46	7	263	9,984	26,945	·03	·03	·41	12·31	1·60	4·10	·29	11·06	29·84	38·96	1
56	5	173	5,305	13,895	·04	·03	·00	12·55	·38	2·64	·32	9·85	25·82	36·33	2
56	7	255	9,475	30,930	·01	·15	7·72	12·85	1·08	4·25	·31	11·65	38·02	37·52	3
180	10	477	4,158	19,892	·06	·10	·52	16·86	·62	1·10	·60	5·25	25·12	26·70	4
40	9	254	4,544	15,415	...	·07	·07	15·75	1·78	1·05	·45	8·01	27·18	28·56	5
43	6	237	7,755	22,941	...	...	·44	9·49	2·72	4·17	·27	8·73	25·82	31·09	6
55	13	297	5,155	21,920	·00	·02	1·53	12·22	2·15	3·24	·35	6·00	25·51	28·35	7
28	...	251	4,899	22,442	...	·05	7·86	12·77	3·66	1·84	·38	7·42	33·98	31·01	8
141	27	528	6,718	25,669	·00	·02	2·66	10·87	2·63	1·78	·52	6·55	25·03	29·11	9
268	3	500	4,532	24,864	·00	·08	·01	10·82	3·19	3·34	·44	3·99	21·87	21·72	10
51	10	469	10,678	30,523	·00	·00	9·82	6·41	3·05	3·01	·54	12·28	35·11	32·25	11
38	2	320	10,859	27,791	·02	·08	5·97	8·22	1·11	3·35	·36	12·26	31·37	33·73	12
27	3	319	6,508	18,541	...	·03	·86	9·40	1·96	2·52	·40	8·21	23·39	33·35	13
13	1	148	5,014	11,545	·03	·69	·12	12·55	2·29	1·02	·39	13·12	30·20	32·39	14
46	6	216	2,609	14,409	·00	·01	·71	14·44	·59	6·85	·42	5·69	28·11	30·99	15
31	2	115	1,288	6,833	...	...	·73	16·83	·42	4·38	·47	5·30	28·13	37·68	16
104	17	347	3,713	14,219	...	·00	·18	9·14	·92	6·87	·58	6·25	23·94	33·00	17
47	1	121	874	4,971	·14	...	·30	12·24	·10	·88	·41	3·00	17·07	22·52	18
97	15	289	1,331	13,404	·05	·01	·04	18·19	·25	2·18	·52	2·34	23·58	32·49	19
45	3	122	450	5,037	·00	·03	·57	11·67	·13	·40	·35	1·28	14·42	12·62	20
67	1	126	465	7,655	...	·00	·84	12·28	·14	·23	·24	·89	14·62	13·51	21
49	4	116	405	6,309	...	...	...	12·64	·30	·69	·27	·95	14·86	17·35	22
55	1	168	241	7,218	...	...	·18	15·13	·09	·20	·38	·55	16·53	15·26	23
83	2	243	308	11,024	...	...	·01	16·51	·06	·08	·39	·49	17·54	20·29	24
44	1	173	242	7,672	·05	...	·25	14·95	·12	·13	·37	·51	16·39	16·80	25
22	...	74	154	3,258	...	...	...	11·56	·17	·31	·29	·61	12·95	14·18	26
1,732	151	6,601	107,664	415,352	·01	·05	2·01	12·20	1·50	2·58	·40	6·56	25·31	28·97	
...	...	6	194	462	...	...	·06	8·55	1·57	5·06	·35	11·28	26·87	32·78	1
...	...	9	171	521	·54	...	·11	13·22	1·69	3·06	·49	9·34	28·45	...	2
1	1	11	93	345	...	...	...	8·93	1·12	4·12	·64	5·47	20·28	20·37	3
...	4	7	141	393	...	...	...	7·62	·71	7·37	·45	9·03	25·18	...	4
...	...	2	123	322	...	·14	·07	8·25	·49	4·94	·14	8·68	22·71	...	5
...	...	2	43	236	...	...	...	10·28	·53	3·63	·15	3·25	17·84	...	6
...	1	5	89	363	...	...	...	12·63	2·36	5·48	·38	6·77	27·62	...	7

1	2	3	4	5	6	7	8	9	10		
									Injur		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	East Khándesh—District—continued.										
8	Nasirabad	13,033	...	...	...	77	47	79	...	...	4
9	Chálisgaon	9,453	...	3	...	149	4	35	....	...	...
	West Khándesh District.										
10	Dhulia	30,757	...	...	2	145	10	131	...	...	8
11	Nandurbár... ...	11,839	...	...	...	104	13	35	...	1	2
	Násik District.										
12	Násik	33,163	...	2	635	140	58	226	1	...	26
13	Yeola	16,275	...	...	7	160	35	128	...	...	4
14	Málegaon	19,542	...	133	193	242	39	48	...	...	7
15	Igatpuri	8,380	...	...	10	49	3	33	...	...	2
16	Manmád	6,947	...	...	10	68	6	11	...	...	8
17	Trimbak	4,078	...	...	...	24	12	26	...	...	2
18	Deoláli Cantonment.	1,748	...	...	...	6	6	10	...	...	...
	Thána District.										
19	Thána	15,591	...	1	11	109	35	38	2	1	7
20	Bándra	22,885	...	8	36	77	49	38	1	1	19
21	Kurla	15,081	...	1	1	188	37	8	...	...	5
22	Bhiwandi	13,292	...	1	79	160	34	17	...	...	2
23	Kalyán	12,600	...	...	25	129	17	36	...	...	4
24	Bassein	9,598	1	...	39	72	9	13	...	...	3
	Kolába District.										
25	Alibág	3,358	...	...	2	15	5	11	...	...	2
26	Panvel	7,744	...	...	72	57	7	17	...	...	5
27	Mahád	7,164	...	...	...	57	7	9	...	...	4
28	Uran	8,748	...	...	40	47	4	3	1	...	2
29	City of Bombay ...	963,363	15	355	598	2,056	2,145	7,860	40	19	486
	Ahmednagar District.										
30	Ahmednagar ...	33,878	1	...	52	292	94	318	2	...	10
31	Sangamner... ...	14,269	...	...	...	111	25	36	...	...	...
32	Ahmednagar Cantonment.	7,748	...	...	...	3	1	24	...	...	...
	Poona District.										
33	Poona	126,201	9	51	255	1,267	679	770	1	...	17
34	Bárámati	10,190	...	...	1	98	28	38	1	...	2
35	Khed	8,056	...	...	1	50	25	34	...	...	1

VI—*continued.*

RIES.			11	12	13										14
					Ratio of Deaths per 1,000 of Population.								From all Causes.		
Sanke-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
...	...	4	160	367	...	...	...	5·91	3·61	6·06	·31	12·27	28·16	43·29	8
...	...	...	49	240	...	·32	...	15·77	·42	3·70	...	5·18	25·39	...	9
...	...	8	128	424	...	...	·06	4·72	·32	4·26	·26	4·16	13·78	29·22	10
2	...	5	120	277	...	...	...	8·78	1·10	2·95	·42	10·14	23·39	30·45	11
1	...	28	474	1,563	...	·06	19·15	4·22	1·75	6·82	·84	14·29	47·13	41·20	12
1	3	8	132	470	...	....	·43	9·83	2·15	7·86	·49	8·12	28·88	31·17	13
...	...	7	150	812	...	6·81	9·88	12·38	1·99	2·45	·36	7·68	41·55	...	14
...	...	2	42	139	...	..	1·20	5·84	·36	3·94	·24	5·01	16·59	...	15
...	...	8	50	153	...	...	1·44	9·79	·86	1·58	1·15	7·20	22·02	...	16
...	...	2	48	112	...	...	...	5·88	2·94	6·38	·49	11·77	27·46	...	17
...	...	...	32	54	...	...	...	3·43	3·43	5·72	...	18·31	30·89	...	18
...	...	10	202	406	...	·06	·71	6·99	2·24	2·44	·64	12·96	26·04	33·88	19
1	2	24	275	507	...	·35	1·57	3·36	2·14	1·66	1·05	12·02	22·15	28·83	20
...	1	6	63	304	...	·06	·06	12·47	2·45	·53	·40	4·18	20·15	...	21
1	3	6	154	451	...	·08	5·94	12·04	2·56	1·28	·45	11·58	33·93	...	22
2	1	7	42	256	...	...	1·98	10·24	1·35	2·86	·56	3·33	20·32	26·25	23
...	...	3	118	255	·10	...	4·06	7·50	·94	1·35	·31	12·30	26·56	29·22	24
...	...	2	50	85	...	...	·59	4·47	1·49	3·28	·59	14·89	25·31	40·22	25
1	1	7	83	243	...	...	9·30	7·36	·90	2·20	·90	10·72	31·38	31·84	26
...	....	4	86	163	...	...	...	7·96	·98	1·25	·56	12·00	22·75	21·16	27
...	...	3	48	145	...	...	4·57	5·38	·46	·34	·34	5·49	16·58	...	28
5	10	560	9,698	23,287	·01	·37	·62	2·13	2·23	8·16	·58	10·07	24·17	35·45	29
1	...	13	178	948	·03	...	1·53	8·62	2·77	9·39	·39	5·25	27·98	26·56	30
...	...	...	45	217	...	...	...	7·78	1·75	2·52	...	3·15	15·20	20·25	31
...	...	...	15	43	...	...	...	·39	·13	3·10	...	1·94	5·56	9·28	32
...	5	23	1,024	4,078	·07	·41	2·02	10·04	5·38	6·10	·18	8·11	32·31	43·21	33
...	...	3	57	225	...	...	·10	9·62	2·76	3·73	·29	5·59	22·09	29·53	34
1	...	2	58	170	...	...	·12	6·21	3·10	4·22	·25	7·10	21·10	19·36	35

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
									Inju		
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Poona District—continued.										
36	Lonávla	12,295	...	...	166	132	23	38	...	1	9
37	Junnar	8,820	...	...	74	38	9	13	...	...	3
38	Poona Cantonment	30,958	...	...	20	125	41	100	...	...	...
39	Kirkee do. ...	9,019	...	...	2	41	40	65	...	...	6
	Sholápur District.										
40	Sholápur	61,032	6	...	1,894	985	858	317	5	3	36
41	Bársi	18,097	...	1	653	274	58	41	...	...	11
42	Pandharpur ...	28,550	...	1	35	482	211	94	1	...	11
	Sátára District.										
43	Sátára	18,665	...	...	2	156	79	100	1	...	7
44	Wái	7,280	...	...	95	66	23	18	...	...	1
45	Karád	11,228	...	...	249	63	31	10	...	1	9
46	Ashta	9,351	...	...	154	34	21	14	...	...	4
47	Islámpur	8,574	...	...	404	5	14	32	...	...	3
	Ratnágiri District.										
48	Ratnágiri	15,822	...	...	...	146	120	41	...	...	3
49	Vengurla	17,294	...	1	1	158	84	49	...	...	8
50	Málvan	22,080	...	2	...	210	31	59	...	...	8
51	Chiplún	11,696	...	...	...	104	14	84	...	...	2
	Belgaum District.										
52	Belgaum	31,451	2	...	343	110	40	122	...	...	7
53	Gokák	7,326	...	...	188	35	20	50	...	...	3
54	Athni	13,849	...	...	394	54	31	51	...	...	13
55	Nipáni	10,779	...	...	47	27	27	49	1	...	9
56	Belgaum Cantonment.	9,300	...	...	16	20	14	34	...	...	...
	Dhárwár District.										
57	Dhárwár	29,370	...	...	82	134	77	199	...	2	14
58	Hubli	61,440	...	...	105	233	88	571	2	2	31
59	Gadag-Bettigeri ...	30,429	...	...	16	145	138	207	...	...	11
60	Ránebennur ...	10,931	...	...	482	16	14	73	...	...	4
61	Navalgund ...	7,045	...	...	...	30	5	44	...	...	4
	Bijápur District.										
62	Bijápur	27,569	...	...	257	60	59	165	...	1	10
63	Bágalkot	17,294	1	...	13	70	59	72	...	1	6
64	Guledgudd ...	15,249	...	...	...	74	18	35	...	...	3
65	Ilkal	10,233	1	...	15	51	5	35	1	...	3

VI—*continued.*

			11	12	13										14
RIES.					Ratio of Deaths per 1,000 of Population.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	...	10	87	456	...	...	13·50	10·74	1·87	3·09	·81	7·08	37·09	30·09	36
...	...	3	27	164	...	...	8·39	4·31	1·02	1·47	·34	3·06	18·59	21·77	37
...	...	...	297	583	...	...	·85	4·04	1·32	3·23	...	9·59	18·83	23·61	38
...	...	6	70	224	...	...	·22	4·55	4·43	7·21	·67	7·78	24·84	31·38	39
4	...	48	1096	5,204	·10	...	31·03	16·14	14·06	5·19	·79	17·96	85·27	65·55	40
...	1	12	254	1,293	...	·06	36·08	15·14	3·20	2·27	·66	14·04	71·45	56·75	41
1	...	13	302	1,138	...	·03	1·23	16·88	7·39	3·29	·46	10·58	39·86	52·64	42
1	1	10	176	523	...	...	·11	8·36	4·23	5·86	·58	9·43	28·02	40·77	43
...	...	1	41	244	...	...	13·05	9·07	3·16	2·47	·14	5·63	33·52	41·07	44
...	...	10	70	433	...	...	22·18	5·61	2·76	·89	·89	6·23	38·66	22·35	45
...	...	4	67	294	...	...	16·47	3·64	2·24	1·50	·43	7·16	31·44	21·18	46
1	...	4	35	494	...	...	47·12	·58	1·63	3·73	·49	4·08	57·61	30·32	47
4	...	7	62	376	...	...	...	9·23	7·58	2·59	·44	3·92	23·76	16·62	48
1	...	9	133	435	...	·06	·06	9·14	4·86	2·83	·52	7·68	25·15	26·37	49
3	...	11	104	417	...	·09	...	9·51	1·40	2·67	·50	4·71	18·88	19·57	50
1	...	3	21	226	...	...	...	8·89	1·20	7·18	·25	1·80	19·32	21·01	51
...	1	8	297	922	·06	...	10·91	3·50	1·27	3·88	·26	9·44	29·32	25·32	52
1	...	4	69	366	...	...	25·66	4·78	2·73	6·82	·55	9·42	49·96	63·75	53
1	...	14	111	655	...	...	28·45	3·99	2·24	3·69	1·01	8·01	47·30	28·09	54
1	...	11	68	229	...	...	4·36	2·50	2·50	4·55	1·02	6·31	21·25	28·39	55
...	...	...	82	166	...	...	1·72	2·15	1·50	3·66	...	8·82	17·85	18·07	56
2	...	18	396	906	...	...	2·79	4·56	2·62	6·78	·61	13·48	30·85	33·78	57
...	3	38	835	1,870	...	...	1·71	3·79	1·43	9·27	·62	13·59	30·44	37·52	58
...	3	14	283	803	...	...	·52	4·76	4·53	6·81	·46	9·31	26·39	42·33	59
...	...	4	241	830	...	...	44·09	1·46	1·28	6·68	·37	22·05	75·93	48·39	60
...	...	4	46	129	...	...	...	4·26	·71	6·25	·57	6·53	18·31	35·35	61
...	...	11	209	761	...	...	9·32	2·18	2·14	5·98	·40	7·58	27·60	32·79	62
...	...	7	342	564	·06	...	·75	4·05	3·41	4·16	·40	19·78	32·61	45·16	63
...	...	3	139	269	...	...	...	4·85	1·18	2·29	·20	9·12	17·64	34·99	64
1	...	5	177	289	·09	...	1·47	4·98	·49	3·42	·49	17·30	28·24	44·95	65

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
											Injur
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		or Wounding Accident.
									Male.	Female.	
	B.—TOWNS—*continued.*										
	Kánara District.										
66	Kárwár	18,045	1	2	...	88	57	21	...	...	2
67	Kumta	10,343	...	...	...	74	23	35	...	...	2
68	Gokarn ...	5,304	...	5	...	31	20	21	...	...	...
69	Honáwar ...	7,323	...	2	...	44	19	9	...	...	1
70	Bhatkal	7,141	...	...	...	52	20	18	...	...	2
	Surat District.										
71	Surat	114,733	...	...	757	509	270	1,131	3	...	11
72	Bulsár	15,972	...	...	21	70	23	103	2	...	6
73	Ránder	10,689	...	...	3	63	14	79	...	1	3
	Broach District.										
74	Broach	43,353	...	...	2	210	33	473	2	1	20
75	Jambusar	8,991	...	...	55	129	12	96	...	...	3
76	Ankleshwar ...	11,344	...	...	...	187	4	41	...	...	3
	Kaira District.										
77	Kaira	7,297	...	...	...	56	5	103	...	...	1
78	Mehmadabad ...	6,330	...	...	...	34	8	36	...	...	2
79	Nadiád	27,145	....	....	...	352	17	271	...	...	18
80	Borsad	11,860	...	...	...	61	28	144	1	...	6
81	A'nand	10,139	...	...	...	121	16	43	...	...	2
82	Umreth	13,651	...	...	...	62	14	149	...	1	6
83	Dakore	7,735	...	...	...	109	18	63	1	...	3
84	Kapadvanj	13,126	...	...	...	121	17	106	1	1	4
	Panch Mahál District.										
85	Godhra	22,102	55	...	2	125	20	40	...	...	7
86	Dohad	9,303	45	...	...	281	4	1	...	...	1
	Ahmedabad District.										
87	Ahmedabad ...	214,000	...	...	1	4,152	240	2,530	5	2	85
88	Dhandhuka ...	8,040	...	...	...	97	12	63	...	...	2
89	Viramgám	20,769	...	1	...	317	11	126	...	...	7
90	Dholka	13,693	...	...	...	106	14	96	...	...	12
91	Ahmedabad Cantonment.	2,305	...	...	...	19	...	4	...	...	...
	Karáchi District.										
92	Karáchi	140,511	...	8	1,107	847	131	956	2	...	66
93	Tatta	11,161	...	...	15	113	8	17	...	...	...
94	Kotri	7,256	1	...	98	140	8	49	...	...	4
95	Karáchi Cantonment.	6,004	...	...	9	21	1	...	...	...	...

VI—*continued.*

			11	12	13										14
RIES.					Ratio of Deaths per 1,000 of Population.								From all Causes.		
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No.
...	...	2	170	341	·06	·11	...	4·88	3·16	1·16	·11	9·42	18·90	20·56	66
1	...	3	132	267	...	...	...	7·15	2·22	3·38	·29	12·76	25·81	28·81	67
...	...	...	121	198	...	·94	...	5·84	3·77	3·97	...	22·81	37·33	37·71	68
...	1	2	70	146	...	·27	...	6·01	2·59	1·23	·27	9·56	19·93	24·44	69
...	...	2	69	161	...	...	...	7·28	2·80	2·52	·28	9·66	22·55	20·17	70
1	...	15	1,114	3,796	...	...	6·59	4·43	2·35	9·88	·13	9·71	33·09	23·07	71
...	...	8	78	303	...	...	1·31	4·38	1·45	6·45	·50	4·88	18·97	30·60	72
...	2	6	102	267	...	...	·28	5·89	1·31	7·39	·56	9·54	24·97	...	73
...	...	23	455	1,201	...	...	·04	4·84	·88	10·91	·53	10·50	27·70	32·93	74
3	...	6	26	324	...	...	6·12	14·35	1·33	10·68	·67	2·89	36·04	32·29	75
1	...	4	71	307	...	...	...	16·48	·35	3·61	·35	6·26	27·05	...	76
1	1	3	38	205	...	...	...	7·66	·69	14·12	·41	5·21	28·09	36·74	77
...	...	2	75	155	...	...	...	5·37	1·26	5·69	·32	11·85	24·49	...	78
3	...	21	261	922	...	...	...	12·97	·63	9·98	·77	9·61	33·96	46·94	79
1	...	8	98	339	...	...	...	5·14	2·36	12·14	·68	8·26	28·58	37·45	80
1	1	4	95	279	...	...	...	11·93	1·58	4·24	·40	9·37	27·52	...	81
1	...	8	129	362	...	...	...	4·54	1·03	10·91	·59	9·45	26·52	...	82
...	...	4	59	253	...	...	...	14·00	2·31	8·09	·52	7·58	32·50	...	83
...	2	8	117	369	...	...	...	9·22	1·29	8·08	·61	8·91	28·11	36·02	84
1	...	8	187	437	2·49	...	·09	5·66	·90	1·81	·36	8·46	19·77	17·16	85
1	...	2	78	411	4·83	...	...	30·21	·43	·11	·22	8·58	44·18	42·39	86
4	2	98	1,683	8,704	...	...	·00	19·40	1·12	11·82	·46	7·87	40·67	47·23	87
2	1	5	59	236	...	...	...	12·06	1·49	7·84	·62	7·34	29·35	...	88
1	...	8	170	633	...	·04	...	15·26	·53	6·07	·39	8·19	30·48	36·54	89
2	2	16	179	411	...	...	...	7·74	1·02	7·01	1·17	13 07	30·01	43·08	90
...	...	...	1	24	...	...	...	8 24	...	1·74	...	·43	10·41	12·84	91
...	3	71	2,083	5,203	...	·06	7·88	6·03	·93	6·80	·51	14·82	37·03	42·33	92
...	...	...	92	245	...	...	1·34	10·12	·72	1·52	...	8·24	21·95	...	93
...	...	4	20	320	·14	...	13·51	19·29	1·10	6·75	·55	2·76	44·10	...	94
...	...	...	55	86	...	...	1·50	3·50	·17	...	...	9·16	14·32	...	95

ANNUAL FORM No.

1	2	3	4	5	6	7	8	9	10		
											Injur
No.	Districts and Towns.	Population according to Census of 1911.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.		Wounding or Accident.
									Male.	Female.	
	B.—TOWNS—*concluded.*										
	Hyderabad District.										
96	Hyderabad ...	69,140	...	1	372	974	78	542	...	...	28
97	Halla	5,853	...	...	5	90	...	...	...	...	5
98	Matiari	6,487	...	...	257	41	3	11	...	...	2
99	Hyderabad Cantonment.	5,883	...	...	35	68	...	...	1	...	1
	Thar and Párkar District.										
100	Umarkot	3,946	...	...	...	116	...	23	...	...	...
101	Mirpurkhas ...	4,856	...	...	5	210	2	64	...	...	...
	Nawabshah District.										
102	Nawabshah ...	1,886	...	...	3	40	1	3	...	...	1
103	Tando Adam ...	10,013	...	...	44	303	2	7	...	...	3
	Lárkána District.										
104	Lárkána	16,046	...	...	49	277	1	14	...	...	4
105	Kambar	6,286	...	...	...	168	1	3	...	...	6
106	Ratodero	5,411	...	...	...	109	3	2	...	...	1
107	Sehwan	4,749	...	...	1	92	1	6	...	...	2
	Sukkur District.										
108	Sukkur	34,916	...	1	113	574	43	83	1	1	12
109	Shikárpur	53,944	...	...	79	1,288	28	91	2	...	15
110	Rohri	9,919	...	...	62	194	23	22	...	...	2
111	Garhi Yasin ...	6,549	...	...	3	210	1	...	...	...	1
	Upper Sind Frontier District.										
112	Jacobabad	11,340	...	...	39	193	4	3	1	...	1
	Total of Towns ...	3,179,621	148	582	10,917	24,647	7,082	21,031	82	40	1,269
	Total for the Presidency ...	19,587,383	377	1,425	43,824	224,797	31,707	65,364	271	268	5,565

N. B.—Districts A in this statement do not include the population or deaths of

VI.—*concluded.*

			11	12	13										14
BIES.					RATIO OF DEATHS PER 1,000 OF POPULATION.										
Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total Deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
...	...	28	404	2,399	...	·01	5·38	14·09	1·13	7·84	·40	5·84	34·70	33·73	96
...	...	5	...	100	...	...	·85	15·38	...	...	·85	...	17·08	...	97
...	...	2	26	340	...	...	39·62	6·32	·46	1·70	·31	4·01	52·41	...	98
...	...	2	55	160	...	...	5·95	11·56	...	...	·34	9·35	27·20	...	99
...	...	...	12	151	...	...	...	29·40	...	5·83	...	3·04	38·27	42·05	100
1	...	1	10	292	...	...	1·02	43·25	·41	13·18	·21	2·06	60·13	...	101
...	...	1	1	49	...	...	1.59	21·21	·53	1·59	·53	·53	25·98	...	102
...	...	3	36	395	...	...	4·39	30·26	·20	·70	·30	3·60	39·45	...	103
...	...	4	173	518	...	...	3·05	17·26	·06	·87	·25	10·78	32·28	34·10	104
...	...	6	15	193	...	...	...	26·73	·16	·48	·95	2·39	30·70	...	105
...	...	1	12	128	...	...	...	20·14	·55	·55	·18	2·22	23·66	...	106
...	...	2	30	132	...	...	·21	19·37	·21	1·26	·42	6·32	27·80	...	107
...	...	14	157	985	...	·03	3·24	16·44	1·23	2·38	·40	4·49	28·21	27·59	108
...	...	17	827	2,330	...	...	1·46	23·38	·52	1·69	·31	15·33	43·19	39·24	109
1	...	3	30	334	...	...	6·25	19·56	2·32	2·22	·30	3·02	33·67	...	110
...	...	1	2	217	...	...	·46	32·07	·15	...	·15	·31	33·13	...	111
...	...	2	93	334	...	...	3·44	17·02	·35	·26	·17	8·20	29·45	24·69	112
65	56	1,512	30,342	96,261	·05	·19	3·43	7·75	2·23	6·61	·48	9·54	30·28	32·78	
1,797	212	8,113	138,006	511,613	·02	·07	2·24	11·48	1·62	3·23	·41	7·05	26·12	29·93	

Towns B. In all the other statements "Districts" include Towns.

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1915.*

1	2	3		4		5												6			7			8	9
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from cholera were reported.	Number in each District.	Number from which deaths from cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.		
	Western Registration District.																								
1	East Khándesh ...	22	3	1,438	8	...	...	...	...	...	...	...	...	1	9	...	24	18	16	34	·03	·03	·03	1·58	1
2	West Khándesh ...	10	2	1,096	5	...	...	...	...	...	...	...	...	...	...	...	22	15	7	22	·05	·02	·04	1·34	2
3	Násik	19	2	1,649	2	...	...	...	...	...	...	...	3	...	...	1	...	4	5	9	·01	·01	·01	1·42	3
4	Thána	17	3	1,643	4	10	2	...	7	29	...	...	...	...	...	...	...	23	25	48	·05	·06	·05	·66	4
5	Kolába	14	...	1,461	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·88	5
6	City of Bombay ...	1	1	1	1	...	...	2	3	...	3	2	5	...	...	...	...	11	4	15	·01	·01	·01	·49	6
	Central Registration District.																								
7	Ahmednagar	15	1	1,348	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	·00	·00	·00	2·47	7
8	Poona	18	2	1,201	2	...	1	3	...	1	2	1	2	...	...	...	...	7	3	10	·01	·01	0·1	2·18	8
9	Sholápur	10	1	718	1	...	...	...	...	...	...	3	3	...	...	...	...	4	2	6	·01	·01	0·1	1·91	9
10	Sátára	19	1	1,346	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	·00	·00	·00	2·98	10
11	Ratnágiri	15	1	1,311	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	·00	·00	·00	·12	11
	Southern Registration District.																								
12	Belgaum	15	2	1,070	2	...	...	...	...	...	...	3	...	...	...	...	...	1	2	3	·00	·00	·00	1·26	12
13	Dhárwár	18	3	1,295	4	...	7	5	3	...	...	...	...	...	...	...	...	9	6	15	·02	·01	·01	1·04	13
14	Bijápur...	13	2	1,122	2	...	...	1	...	...	...	...	1	...	...	...	...	1	1	2	...	...	...	1·09	14
15	Kánara	16	4	1,265	4	...	7	3	4	...	1	...	...	...	...	...	...	8	4	12	0·4	·02	·03	·23	15
	Gujarát Registration District.																								
16	Surat	12	1	760	1	...	...	...	...	...	2	...	...	...	...	...	...	1	1	2	...	...	...	·22	16
17	Broach...	9	...	409	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·24	17
18	Kaira	15	...	586	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·31	18
19	Panch Mahals ...	7	5	660	12	...	...	...	...	...	2	58	72	8	...	...	...	68	72	140	·41	·46	·43	·03	19
20	Ahmedabad	13	2	880	4	...	...	...	7	...	20	2	...	...	...	...	...	17	12	29	·04	·03	·04	·13	20
	Sind Registration District.																								
21	Karáchi	16	2	665	2	...	...	...	...	2	...	...	...	...	...	...	...	1	1	2	...	...	...	·80	21
22	Hyderabad	11	...	864	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·85	22
23	Thar and Párkar ...	13	...	901	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·16	23
24	Nawabshah	9	...	721	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·57	24
25	Lárkána	15	...	737	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·48	25
26	Sukkur...	12	1	684	4	...	...	...	4	10	11	...	...	...	...	...	...	11	14	25	·04	·05	·04	·33	26
27	Upper Sind Frontier	7	...	422	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·33	27
	Total for the Presidency.	361	39	26,253	61	10	18	16	25	42	19	31	79	73	17	1	46	202	175	377	·02	·02	·02	·99	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1915.*

1	2	3		4		5												6			7		8			9	10
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			NUMBER OF THESE DEATHS AMONG CHILDREN.		RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 of previous five years.	No.
		Number in each District.	Number from which deaths from Small-pox were reported.	Number in each District.	Number from which deaths from Small-pox were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Under 1 year.	Under 10 years.	Male.	Female.	Total.		
	Western Registration District.																										
1	East Khándesh ...	22	7	1,438	12	1	1	3	8	13	3	1	1	1	...	1	1	15	19	34	11	20	·03	·04	·03	·71	1
2	West Khándesh ...	10	4	1,096	3	...	3	10	1	2	...	...	...	...	...	...	...	4	12	16	7	9	·02	·04	·03	·78	2
3	Násik	19	10	1,649	53	23	21	27	19	19	3	3	7	12	12	28	82	135	121	256	76	155	·29	·27	·28	·31	3
4	Thána	17	12	1,643	34	5	6	12	9	16	5	9	5	8	6	7	11	49	45	94	27	64	·11	·11	·11	·25	4
5	Kolába	14	7	1,461	20	5	4	7	5	5	7	3	...	...	...	1	...	16	21	37	9	17	·05	·07	·06	·54	5
6	City of Bombay ...	1	1	1	1	17	16	51	60	68	37	20	18	16	7	10	35	212	143	355	64	88	·34	·43	·37	·60	6
	Central Registration District.																										
7	Ahmednagar	15	...	1,348	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·19	7
8	Poona	18	8	1,201	14	3	9	17	16	7	3	6	3	2	3	...	3	39	33	72	29	30	·07	·06	·07	·30	8
9	Sholápur	10	9	718	22	9	12	3	5	3	...	...	3	...	...	2	2	21	17	38	17	8	·05	·04	·05	·34	9
10	Sátára	19	5	1,346	8	...	2	2	6	3	2	1	...	...	...	...	4	9	11	20	7	9	·02	·02	·02	·11	10
11	Ratnágiri	15	13	1,311	40	15	10	15	13	1	9	9	1	5	1	3	12	50	44	94	30	35	·09	·07	·08	·26	11
	Southern Registration District.																										
12	Belgaum	15	3	1,070	3	...	...	1	...	2	...	...	...	...	1	...	...	4	...	4	2	...	·01	·00	·01	·18	13
13	Dhárwar...	18	5	1,295	31	18	5	5	12	17	4	4	3	2	2	...	...	42	30	72	20	22	·08	·06	·07	·24	13
14	Bijápur	13	4	1,122	9	2	4	1	3	2	3	1	2	...	...	...	...	10	16	26	9	14	·02	·04	·03	·24	14
15	Kánara	16	12	1,265	83	23	16	41	42	44	31	22	16	9	4	4	22	158	121	279	39	64	·70	·57	·64	·37	15
	Gujarát Registration District.																										
16	Surat	12	2	760	2	1	1	4	...	...	...	...	...	...	...	...	...	3	3	6	...	4	·01	·01	·01	·24	16
17	Broach	9	...	409	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·05	17
18	Khira	15	1	586	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1	...	...	...	·09	18
19	Panch Mahals	7	...	660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·03	19
20	Ahmedabad	13	3	880	3	...	1	...	2	...	...	...	1	...	...	...	...	2	2	4	2	2	...	...	...	·26	20
	Sind Registration District.																										
21	Karáchi	16	2	665	5	...	...	13	1	4	...	...	...	...	...	...	...	7	11	18	4	4	·02	·05	·04	·53	21
22	Hyderabad	11	3	864	3	...	...	1	...	1	...	...	...	...	...	1	...	1	2	3	...	1	...	...	...	·38	22
23	Thar and Párkar ...	13	...	901	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·31	23
24	Nawabshah	9	...	721	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·20	24
25	Lárkána	15	...	737	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·09	25
26	Sukkur	12	1	684	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	...	·00	·01	·01	·11	26
27	Upper Sind Frontier ...	7	...	422	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·15	27
	Total for the Presidency.	361	112	26,253	353	122	111	213	203	206	112	81	58	53	36	57	173	772	653	1,425	353	547	·08	·07	·07	·30	

ANNUAL FORM No. IX.—DEATHS *registered from* FEVER *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1915.*

No.	Districts.	Circles of Registration. Number in each District.	Circles of Registration. Number from which deaths from fever were reported.	Villages. Number in each District.	Villages. Number from which deaths from fever were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Ratio of Deaths per 1,000 of Population. Male.	Ratio of Deaths per 1,000 of Population. Female.	Ratio of Deaths per 1,000 of Population. Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh ...	22	22	1,433	1,325	951	749	873	900	1,059	797	664	923	1,456	1,342	1,319	1,392	6,191	6,234	12,425	11·87	12·16	12·01	12·60	1
2	West Khándesh ...	10	10	1,096	1,022	729	578	850	595	504	390	365	490	630	617	630	626	3,540	3,464	7,004	11·97	12·15	12·06	12·71	2
3	Násik	19	19	1,649	1,495	1,118	912	949	783	714	670	676	891	966	1,052	1,029	1,380	5,643	5,497	11,140	12·40	12·25	12·33	14·22	3
4	Thána	17	17	1,643	1,486	1,289	1,101	1,289	1,051	848	792	636	995	1,100	1,283	1,649	2,055	6,949	7,140	14,089	15·22	16·83	15·99	16·61	4
5	Kolába	14	14	1,461	1,364	811	803	859	699	607	559	548	655	691	657	880	1,390	4,540	4,569	9,109	15·39	15·28	15·34	15·36	5
6	City of Bombay ...	1	1	1	1	151	131	150	194	201	147	165	214	211	177	159	156	1,236	820	2,056	1·96	2·46	2·13	3·22	6
	Central Registration District.																								
7	Ahmednagar ...	15	15	1,348	1,214	580	515	573	741	746	722	731	862	835	877	771	881	4,632	4,205	8,837	9·75	8·97	9·36	10·96	7
8	Poona	18	18	1,201	1,041	828	699	901	929	977	904	903	1,270	1,228	1,094	1,065	1,452	6,226	6,023	1,2249	11·57	11·44	11·50	13·60	8
9	Sholápur	10	10	718	699	606	494	618	818	790	878	772	1,052	1,109	1,048	1,081	910	5,029	5,147	10,176	12·85	13·66	13·25	15·45	9
10	Sátára	19	19	1,346	1,231	783	624	769	855	917	840	835	1,091	1,203	1,095	1,146	1,333	5,729	5,743	11,472	10·63	10·69	10·64	11·13	10
11	Ratnágiri	15	15	1,311	1,232	1,277	1,309	1,270	1,063	735	824	779	1,029	996	1,040	1,019	1,546	6,064	6,861	12,925	10·96	10·56	10·74	12·41	11
	Southern Registration District.																								
12	Belgaum	15	15	1,070	938	385	317	406	426	368	414	374	477	471	606	724	852	2,874	2,943	5,820	6·01	6 36	6·18	5·33	12
13	Dhárwár	18	18	1,295	1,132	638	507	762	618	490	479	462	515	601	728	841	1,192	3,788	4,048	7,836	7·28	8·01	7·64	7·86	13
14	Bijápur	13	13	1,122	1,021	486	394	466	602	438	469	506	626	673	889	1,009	1,152	3,811	3,899	7,710	8·79	9·09	8·94	10·03	14
15	Kánara	16	16	1,265	988	482	460	433	367	320	316	375	349	370	493	497	623	2,546	2,539	5,085	11·57	12·07	11·81	13·33	15
	Gujarát Registration District.																								
16	Surat	12	12	760	716	1,018	877	895	634	606	490	443	536	513	593	655	788	3,999	4,043	8,042	12·24	12·36	12·30	15·96	16
17	Broach	9	9	409	394	567	461	407	423	336	271	231	333	332	347	383	365	2,299	2,317	4,616	14·53	15·63	15·05	22·73	17
18	Kaira	15	15	586	544	641	679	775	581	459	443	449	457	392	433	551	502	3,354	2,993	6,347	9·06	9 31	9·18	12·53	18
19	Panch Mahals ...	7	7	660	585	404	351	423	371	317	260	219	289	308	316	332	337	2,043	1,928	3,971	12·31	12·30	12·31	17·78	19
20	Ahmedabad ...	13	13	880	802	1,859	1,618	1,641	1,368	1,168	894	895	1,002	1,172	1,017	1,171	1,228	7,811	7,222	15,033	18·08	18·27	18·17	25·03	20
	Sind Registration District.																								
21	Karáchi	16	16	665	665	656	660	596	390	396	258	239	221	324	363	511	607	2,932	2,289	5,221	10·10	10 13	10·11	9·13	21
22	Hyderabad ...	11	11	864	864	1,150	819	926	589	518	388	372	309	387	500	745	901	4,271	3,333	7,604	12·65	12 18	12·44	12·15	22
23	Thar and Párkar...	13	13	901	901	642	561	628	451	426	292	273	207	260	370	679	905	3,094	2,600	5,694	12·82	13·54	13·14	16·39	23
24	Nawabshah ...	9	9	721	721	886	767	906	548	375	335	358	257	322	554	778	863	3,894	3,075	6,949	15·64	15·32	15·49	12·98	24
25	Lárkána	15	15	737	737	1,770	1,123	1,139	754	697	580	578	560	619	877	1,079	1,245	5,974	5,047	11,021	16·63	16·73	16·68	13·89	25
26	Sukkur	12	12	684	684	1,087	860	922	633	585	516	511	479	524	816	1,089	1,213	4,982	4,283	9,265	15·93	16·42	16·15	13·53	26
27	Upper Sind Frontier	7	7	422	422	438	257	256	201	173	187	157	193	188	307	396	344	1,671	1,430	3,101	11·43	12·13	11·78	13·49	27
	Total for the Presidency ...	361	361	26,253	24,254	22,282	18,633	20,577	17,646	15,770	14,115	13,556	16,344	17,981	19,496	22,140	26,431	115,072	109,725	224,797	11·29	11·67	11·48	13·21	

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1915.*

No.	Districts.	Circles of Registration. Number in each District.	Circles of Registration. Number from which deaths from Dysentery and Diarrhœa were reported.	Villages. Number in each District.	Villages. Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Ratio of Deaths per 1,000 of Population. Male.	Ratio of Deaths per 1,000 of Population. Female.	Ratio of Deaths per 1,000 of Population. Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh ...	22	22	1,433	424	73	73	78	89	90	109	101	247	305	204	130	134	862	771	1,633	1·65	1·50	1·58	2·10	1
2	West Khándesh ...	10	10	1,096	128	16	10	12	18	7	10	14	37	35	32	17	15	132	91	223	·45	·32	·38	·77	2
3	Násik	19	19	1,649	406	56	41	43	56	63	64	97	191	153	105	81	86	554	482	1 036	1·22	1·07	1·15	1·60	3
4	Thána	17	17	1,643	270	41	38	47	47	37	62	55	91	68	54	57	71	380	288	668	·83	·68	·76	·90	4
5	Kolába... ...	14	14	1,461	413	92	59	59	52	73	58	83	197	142	89	51	80	541	494	1,035	1·83	1·65	1 74	1·50	5
6	City of Bombay ...	1	1	1	1	172	153	197	179	163	130	152	245	229	179	159	187	1,159	986	2,145	1·84	2·96	2·23	3·53	6
	Central Registration District.																								
7	Ahmednagar	15	15	1,348	789	121	116	104	152	213	197	245	392	360	251	210	178	1,316	1,283	2,599	2·75	2·63	2·69	4·49	7
8	Poona	18	18	1,201	565	142	137	140	185	199	220	252	415	375	279	179	167	1,471	1,219	2,690	2·73	2·31	2·53	4·62	8
9	Sholápur	10	10	718	535	208	183	222	262	253	294	249	533	493	400	245	211	1,853	1,690	3,543	4 74	4·49	4·61	6·37	9
10	Sátára	19	19	1,346	664	142	109	128	116	167	222	244	451	530	351	231	177	1,443	1,425	2,868	2·68	2·63	2·65	4·11	10
11	Ratnágiri	15	15	1,311	979	420	350	323	309	116	265	175	364	413	365	356	414	2,106	1,769	3,875	3·81	2·72	3·22	2·81	11
	Southern Registration District.																								
12	Belgaum	15	15	1,070	621	145	121	149	161	202	234	274	335	360	318	237	243	1,352	1,427	2,779	2 83	3·08	2·95	4·21	12
13	Dhárwár	18	18	1,295	362	95	76	85	91	91	89	114	131	127	145	130	132	650	656	1,306	1·25	1·30	1·28	1·32	13
14	Bijápur	13	13	1,122	525	89	71	77	80	74	92	149	217	254	235	180	177	798	807	1,605	1·84	2·09	1·96	2·96	14
15	Kánara	16	16	1,265	297	89	84	53	53	37	49	66	110	116	133	133	97	576	438	1,014	2·60	2·08	2·39	2·45	15
	Gujarát Registration District.																								
16	Surat	12	12	760	168	40	49	37	54	59	50	57	68	72	33	39	35	303	305	608	·93	·93	·93	·67	16
17	Broach...	9	9	409	60	12	9	17	15	16	9	16	20	14	12	7	9	84	72	156	·53	·48	·51	·76	17
18	Kaira	15	15	583	191	50	29	49	53	55	58	76	80	73	52	46	40	343	313	661	·94	·97	·96	1·64	18
19	Panch Mahals ...	7	7	660	24	2	4	2	5	4	2	9	13	4	1	3	4	30	23	53	·18	·15	·16	·21	19
20	Ahmedabad ...	13	12	880	85	12	15	38	37	17	25	24	37	44	36	69	63	226	196	422	·52	·50	·51	·76	20
	Sind Registration District.																								
21	Karáchi	16	14	665	35	19	18	16	14	25	13	8	26	20	17	7	9	113	79	192	·39	·35	·37	·40	21
22	Hyderabad	11	9	864	66	19	19	17	18	12	10	3	7	9	8	14	17	79	74	153	·24	·27	·25	·36	22
23	Thar and Párkar ...	13	12	901	82	45	8	11	11	11	7	1	5	1	6	10	13	74	55	129	·31	·29	·30	·04	23
24	Nawabshah	9	7	721	29	4	3	4	1	1	3	1	3	4	7	5	6	28	14	42	·11	·07	·10	·10	24
25	Lárkána	15	15	737	34	5	3	6	3	3	5	2	2	5	3	2	1	23	22	45	·06	·07	·07	·04	25
26	Sukkur...	12	12	684	34	16	9	19	32	12	6	8	8	11	11	12	6	94	56	150	·30	·21	·26	·13	26
27	Upper Sind Frontier .	7	6	422	27	6	3	3	6	5	...	...	4	2	3	9	6	29	18	47	20	·15	·18	·04	27
	Total for the Presidency ...	361	352	26,253	7,763	2,140	1,795	1,936	2,099	2,005	2,283	2,475	4,229	4,188	3,335	2,639	2,583	16,614	15,093	31,707	1·63	1·61	1·62	2·19	

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1915.*

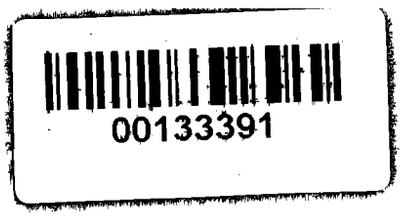
1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh ...	22	22	1,438	969	433	383	360	326	271	201	219	314	394	385	469	592	2,337	2,101	4,338	4·29	4·10	4·2	4·11	1
2	West Khándesh...	10	10	1,096	526	158	152	166	126	90	61	72	107	116	136	168	236	877	711	1,588	2·99	2·47	2·7	2·26	2
3	Násik ...	19	19	1,649	957	371	355	342	305	213	217	254	304	349	363	396	471	2,002	1,938	3,940	4·40	4·32	4·3	3·98	3
4	Thána ...	17	17	1,643	434	98	89	108	74	68	80	98	81	69	66	84	108	601	421	1,022	1·32	·99	1·1	·95	4
5	Kolába ...	14	14	1,461	309	63	55	45	57	42	41	37	58	47	49	73	63	339	296	635	1·15	·99	1·0	·95	5
6	City of Bombay...	1	1	1	1	668	551	654	669	649	621	575	580	618	715	734	826	4,294	3,576	7,860	6·80	10·72	8·16	11·06	6
	Central Registration District.																								
7	Ahmednagar ...	15	15	1,346	914	312	322	375	306	263	262	315	348	300	373	384	519	1,946	2,138	4,084	4·10	4·56	4·33	3·93	7
8	Poona ...	18	18	1,201	732	301	257	331	308	316	288	312	329	367	337	301	395	1,910	1,932	3,842	3·55	3·67	3·61	3·29	8
9	Sholápur ...	10	10	718	353	122	114	125	122	102	100	82	125	125	196	215	242	782	888	1,670	2·00	2·36	2·17	1·88	9
10	Sátára ...	19	19	1,346	551	177	130	139	149	123	117	135	178	226	183	209	233	924	1,075	1,999	1·71	1·98	1·85	1·14	10
11	Ratnágiri ...	15	15	1,311	785	390	385	379	342	287	291	298	337	328	326	289	376	2,216	1,812	40,28	4·00	2·79	3·35	2·16	11
	Southern Registration District.																								
12	Belgaum ...	15	15	1,070	600	264	227	257	210	214	194	207	233	213	262	273	364	1,484	1,434	2,918	3·10	3·09	3·10	2·88	12
13	Dhárwár ...	18	18	1,295	796	366	279	415	334	269	228	293	359	282	343	413	485	1,997	2,069	4,066	3·84	4·10	3·97	3·25	13
14	Bijápur ...	13	13	1,122	645	173	163	164	203	149	129	158	198	162	187	254	362	1,239	1,063	2,302	2·86	2·48	2·67	2·53	14
15	Kánara ...	16	16	1,265	221	64	35	52	26	28	28	43	49	31	32	44	62	280	214	494	1·28	1·02	1·15	1·05	15
	Gujarát Registration District.																								
16	Surat ...	12	12	760	634	422	421	397	442	345	340	294	382	388	397	457	541	2,685	2,141	4,826	8·22	6·55	7·38	6·85	16
17	Broach ...	9	9	409	248	175	164	170	144	98	122	111	111	116	119	153	182	934	736	1,670	5·90	4·96	5·45	5·92	17
18	Kaira ...	15	15	536	505	459	439	446	423	376	430	403	393	379	334	450	464	2,832	2,164	4,996	7·65	6·73	7·22	9·65	18
19	Panch Mahális ...	7	7	660	122	29	22	18	32	15	16	20	15	28	30	38	43	194	103	297	1·17	·66	·92	·82	19
20	Ahmedabad ...	13	12	880	324	323	397	347	331	326	238	250	281	325	287	482	462	2,221	1,838	4,059	5·14	4·66	4·91	5·22	20
	Sind Registration District.																								
21	Karáchi ...	16	14	665	65	121	125	127	134	118	97	52	44	75	75	92	102	682	480	1,162	2·35	2·12	2·25	1·68	21
22	Hyderabad ...	11	9	864	79	101	106	88	43	49	37	24	43	34	38	51	60	340	334	674	1·01	1·22	1·10	·85	22
23	Thar and Párkar.	13	13	901	145	66	55	70	45	29	13	12	4	7	11	17	54	232	148	380	·96	·77	·88	·16	23
24	Nawabshah ...	9	9	721	46	19	34	16	1	2	4	1	3	4	3	5	4	62	34	96	·25	·17	·21	.12	24
25	Lárkána ...	15	13	737	30	15	11	18	9	7	4	4	3	4	3	...	...	53	26	79	·15	·09	·12	·03	25
26	Sukkur ...	12	11	684	34	29	30	48	37	25	10	14	12	12	9	13	18	180	77	257	·57	·30	·45	·17	26
27	Upper Sind Frontier ...	7	6	422	41	8	7	7	8	9	10	6	4	8	5	4	6	55	27	82	·38	·23	·31	·01	27
	Total for the Presidency ...	361	353	26,253	11,066	5,724	5,313	5,665	5,197	4,483	4,194	4,280	4,895	5,006	5,264	6,068	7,275	33,588	29,776	63,364	3·30	3·17	3·23	3·18	

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1915.*

1	2	3		4		5												6			7			8	9
		CIRCLES OF REGISTRATION.		VILLAGES.														TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
No.	Districts.	Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	Western Registration District.																								
1	East Khándesh...	22	8	1,438	35	32	63	216	49	12	...	...	1	1	...	...	...	190	184	374	·36	·36	·36	1·91	1
2	West Khándesh...	10	2	1,096	2	...	...	...	...	...	...	...	...	...	...	...	4	4	...	4	·01	...	·01	·21	2
3	Násik ...	19	16	1,649	212	416	462	477	220	65	65	224	831	1,037	1,438	982	922	3,321	3,818	7,139	7·30	8·51	7·90	2·04	3
4	Thána ...	17	14	1,643	49	37	98	169	106	53	9	26	40	27	15	17	8	301	304	605	·66	·72	·69	·83	4
5	Kolába ...	14	8	1,461	18	5	12	78	30	6	...	2	1	1	2	11	6	92	62	154	·31	·21	·26	1·01	5
6	City of Bombay...	1	1	1	1	7	17	77	159	131	33	40	31	28	22	24	29	441	157	598	·70	·47	·62	3·10	6
	Central Registration District.																								
7	Ahmednagar ...	15	7	1,348	23	33	16	49	16	1	...	19	96	74	56	41	44	199	246	445	·42	·53	·47	·51	7
8	Poona ...	18	16	1,201	71	248	151	137	48	14	3	11	69	180	394	332	251	858	980	1,838	1·60	1·86	1·73	1·32	8
9	Sholápur ...	10	9	718	130	31	196	402	110	35	7	18	272	582	1,513	2,063	2,450	3,855	3,914	7,769	9·85	10·39	10·12	2·10	9
10	Sátára ...	19	17	1,340	130	170	191	259	92	50	56	164	240	493	582	517	819	1,707	1,926	3,633	3·17	3·55	3·36	3·61	10
11	Ratnágiri ...	15	3	1,311	4	6	3	3	...	...	...	...	...	...	...	...	1	8	5	13	·01	·01	·10	·19	11
	Southern Registration District.																								
12	Belgaum ...	15	15	1,070	226	300	357	458	273	166	231	725	1,422	1,349	1,770	1,548	927	4,696	4,830	9,526	9·91	10·42	10·11	5·19	12
13	Dhárwár ...	18	15	1,295	304	394	260	304	93	123	158	495	915	942	779	747	766	3,049	2,927	5,976	5·86	5·80	5·83	10·36	13
14	Bijápur ...	13	11	1,122	70	37	39	28	1	...	...	5	10	49	188	216	396	447	522	969	1·03	1·21	1·12	6·59	14
15	Kánara ...	16	2	1,265	3	...	1	...	...	...	...	...	2	17	9	9	8	24	22	46	·11	·10	·11	·20	15
	Gujarát Registration District.																								
16	Surat ...	12	9	760	47	29	82	124	188	44	10	7	42	102	158	227	130	612	531	1,143	1·87	1·62	1·75	1·48	16
17	Broach ...	9	5	409	17	15	37	100	74	9	...	...	...	...	...	...	...	110	125	235	·70	·84	·77	·05	17
18	Kaira ...	15	3	536	9	1	15	24	15	...	1	...	11	18	20	2	1	60	48	108	·16	·15	·15	·84	18
19	Panch Mahális ...	7	3	660	8	21	14	44	9	...	...	...	...	...	...	...	...	44	44	88	·27	·28	·27	·31	19
20	Ahmedabad ...	13	2	880	6	14	3	1	6	1	...	...	...	1	...	...	...	13	13	26	·03	·03	·03	·27	20
	Sind Registration District.																								
21	Karáchi ...	16	10	665	26	21	53	138	411	491	234	22	10	23	12	12	2	882	547	1,429	3·04	2·42	2·77	2·95	21
22	Hyderabad ...	11	10	864	42	182	210	361	303	47	2	...	...	2	...	...	...	633	474	1,107	1·88	1·73	1·81	·10	22
23	Thar and Párkar.	13	1	901	1	...	1	2	2	...	...	...	...	...	...	...	...	5	...	5	·02	·00	·01	·06	23
24	Nawabshah ...	9	6	721	7	3	27	72	20	2	1	...	...	...	...	...	...	72	53	125	·29	·26	·28	·03	24
25	Lárkána ...	15	7	737	8	1	...	3	48	4	...	...	...	...	...	...	...	39	17	56	·11	·06	·08	·00	25
26	Sukkur ...	12	8	684	21	2	5	89	220	53	...	...	...	...	...	...	...	255	119	374	·82	·46	·65	·01	26
27	Upper Sind Frontier ...	7	1	422	1	...	...	...	28	11	...	...	...	...	...	...	...	26	13	39	·18	·11	·15	...	27
	Total for the Presidency ...	361	209	26,253	1,536	2,005	2,313	3,705	2,521	1,323	810	1,758	3,993	4,926	6,958	6,748	6,764	21,943	21,881	43,824	2·15	2·33	2·24	2·0	

N. B.—These figures do not include deaths among Europeans, Anglo-Indians and Fighting men.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.


00133391

Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020